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A PLEA FOR ALL-YEAR SCHOOLS.

PARENT-TEACHER ASSOCIATIONS

A Superintendent's Wife

In the system of schools where Mr. M. is superintendent the schedule was so arranged that not all the children had their lunch hour at the same time. A family with four children not infrequently found that one child required lunch at 12:15, the second at 12:30, another at 1 o'clock, and the fourth at 1:15. This naturally brought forth protests from the kitchen.

After interviews, many and tiresome, with individual mothers, the superintendent sought a meeting with the joint Parent-Teacher Associations of his city. He took up the subject of the lunch hour, explained the circumstances—crowded conditions necessitating the use of the same room by two sets of children, the schedule for special subjects like shopwork, music, etc.—stating to them his problem and the best solution he had been able to evolve. Then he asked for suggestions. They came freely; but in each case the mother had failed to foresee how her solution conflicted with some other mother's wishes, or with some other part of the complicated school machinery. After laboring with the puzzle from many angles the women concluded that they could not improve on the superintendent's schedule, and frankly told him so.

As they left the building several of them spoke of the wasted afternoon—"We are just where we were yesterday." But were they?

Thereafter they served "meals at all hours" if not with greater at least with a more intelligent patience; and many of them had gotten their first glimpse of the conscientious thought and labor that go into even the side issues of school work. They were being educated.

If the superintendent's job consisted merely of educating the *children* of his community his task would be simple. But in order to do his work with any degree of success he must educate the entire community, and let them educate him. Heretofore the school board was his only organized medium, but the P. T. A. is another field, larger and more far-reaching.

The primary reason for such an association is, I think, to create intelligent school sentiment, and to give that sentiment organized form.

A very small percentage of the people in a community have any clear idea of the duties, problems, and limitations to which their superintendent is subject; they know as little about those of the teacher, and less about those of the state officials. They have given little thought to the work, the vexations, and the blame that are the lot of the ordinary school board.

When a P. T. A. sets out to do things, the women (for in this case at least "parents" means mostly women) may not at first do much to aid in the education of their children, but they themselves get education in chunks. A newly organized P. T. A. near my home took itself as seriously as most new bodies do, and, at the close of their first meeting went over the entire school building on a tour of inspection. Every separate woman saw a separate defect that she wanted remedied *at once*. The basement *must* be entirely refitted, the stairs *must* be widened, some rooms were too small, some were too dark, the kitchen was not properly equipped, etc., etc. They would ask to have these things corrected immediately.

That night the president discussed the matter with her husband; then she discussed it with the president of the board; then she discussed it with the mayor. When she met with her joint committees a few days later she advised them to find the most urgent need and ask for one thing at a time; she urged the women to fit themselves for their task by finding out for themselves just what some of their proposed improvements would cost; also to study tax rates and property values. Under her guidance (and prodding) those women, in six months, learned more about taxation, public expenditures, and municipal affairs in general, than they had learned before in all their lives. She taught them to go into a matter thoroly before they criticised or made suggestions, that they might do so understandingly.

The attitude of the average parent toward his child's school life indicates one of two things—unlimited confidence in the teacher, or unlimited indifference toward the child's education. We have been surfeited with stories illustrating the farmer's supervision of his stock, the businessman's watchfulness over his dollars, and the indifference of both to the schools. The P. T. A. will probably not reach some of these fathers directly, but it will reach many mothers.

One village that I know personally had an indifferent, half-dead P. T. A. The new president secured a speaker thoroly conversant with conditions, then made it her business to secure him an audience. Tho the night was densely dark with a heavy fog, he found a good house. After telling them some of the things a P. T. A. can do he invited questions. The result showed an alarming state of ignorance and an encouraging state of interest. A capable-looking man arose and said, "I want to ask some questions, not in any spirit of criticism or fault finding, but for information: I hear so much about school supplies, and that our school is not adequately equipped. Now if this is true, whose fault is it?"

"It may be the fault of the district clerk, or the school board, or the community."

"Whose business is it to buy the supplies?"

"The district clerk's."

"Well, suppose he neglects it?"

"Then it is the duty of the school board to see that he attends to it."

"Where does the money come from to pay for these supplies?"

"It is voted by the public at your annual school meeting."

"Then if we want more and better equipment we ought first vote more money for the board to use?"

"Yes, you ought to make your budget higher at the next annual meeting and then *vote* for it."

"Thank you. I for one, will do so." There were several questions relating to the conduct of the annual school meeting, followed by a thoro discussion of the compulsory education laws and the duties and powers of the attendance officer.

The results of that meeting will be far-reaching.

1. At the very next session there was an attendance of 128, fully half of whom were men.

2. Three members of the board were present, and you may be sure they took notice of the questions asked and the general sentiment of the meeting. They saw that these people stood for better equipment and better schools even if that meant a higher budget. They realized that these people would notice, and know where to place the blame, if supplies were not adequate and secured at the proper time. In short, they saw that they would be held accountable for their stewardship.

3. Two men asked the questions but every one in that meeting heard both questions and answers and all went away with an informed and stimulated interest in the schools.

4. That intangible benefit that radiates from every well conducted get-together.

Every occasion that brings the people *into the schoolhouse* is a benefit, with the possible exception of an indignation meeting.

Many school boards stint their schools because they feel that their community will not stand for increased expenditure. If by means of the P. T. A. the taxpayers can be brought to see the desirability of further equipment the response is prompt. One year ago a county superintendent of my acquaintance made an educational campaign via the P. T. A.'s which pretty well cover his county. As a direct result, at the next annual meeting, from all over his district came reports stating that the taxpayers themselves had asked for a higher budget and better equipment. The superintendent who discourages P. T. A.'s deprives himself of one of his strongest and most powerful allies.

A P. T. A. can be of very direct help. One of its great opportunities consists in securing proper instruction in child hygiene, and in *getting the mothers out* to hear the instruction. Improved school surroundings; proper chaperonage for straw-rides, dances, picnics, and other school functions; arrangements for hot lunches; reading circles; assisting in school exhibits and entertainments are some of the ways. Out of these activities, the best result of all, will develop a friendliness and a better understanding all around. A P. T. A. in my home town recently staged an amateur play in order to raise funds for playground equipment. The cast included both teachers and parents. Financially it was a great success; but the greatest good came in "the things that are not seen"—the community interest in the school, and the acquaintance of parent with teacher. I was in a position to get some of the reaction from both sides:

"Isn't Miss Jones interesting! No wonder the children all like her."

"I can understand Charlie Lake better since I've seen so much of his mother. She's so full of tricks that I suppose it *is* hard for Charlie to behave."

"I shall always have more patience with Peter since I know how hard and crabbed his mother is."

"I told my husband that the board simply *must* retain Miss Brown. She's so refined. We need her influence not only for our children but for ourselves."

And alas, "I don't wonder that all the children dislike Miss B."

We all recognize the force and power of *organized* effort. David B. Hill, that past master in politics, constantly sounded the slogan, "Organize! Organize! Organize!"

Suppose a few intelligent mothers realize that their children are not properly taught or housed, that the sessions are too long or the schedule too exacting, that the pupils' health is not properly safeguarded. Those women, especially in rural communities, are not at all likely to go as individuals and present the matter to the teacher-superintendent, or the school board. And if they do, their words will carry little weight. But if those same women come before the board as a committee from the P. T. A., representing the wishes of the community (the taxpayers), their presence will command quite a different hearing.

One warning:—A Parent-Teacher Association must not develop into a *complaint society*.

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TEACHERS AND SUPERVISION

Chas. A. Wagner, Ph. D., Superintendent
of Schools, Chester, Pa.

Discussion of this topic must permit a superintendent to state some conclusions and observations bearing upon both sides of the controversy. Not all the truth is on one side and not all the error on the other side. Because some teachers object to supervision and because some superintendents are despotic supervisors is not in itself a condemnation of supervision. Other teachers like supervision and feel helped by it, and other superintendents have the fine, tho all too rare, human sympathy to put themselves into the teacher's place and thus deliver a fair, considerate but just judgment. This but discloses that supervision is still in most cases and places on a personal basis and has not reached the truly professional, the impersonal and judicial basis.

Do Teachers as a Class Dislike Supervision?

Since no statistical study appears to have been made at any time, it is obviously impossible to give a statistical reply. The mere existence of supervision everywhere is not a proof that teachers like it or believe in it. The truth seems to be that some teachers do not like it and others do like it. This has been found true by experience if not by statistics. It is still truer, however, that of a given teaching corps under supervision, some teachers like one supervisor, other teachers like another supervisor. Probably few supervisors are well liked by all their teachers, and similarly, probably few supervisors are disliked by all their teachers. But this is the reemergence of the fact of personal rather than professional considerations. This being so, what is indicated? That supervision should be abolished? Scarcely. Supervisor and supervised must rise above personality to the professional level, and meet each other in their teaching relationship in the impersonal professional attitude of the judge on the bench. No personal consideration should enter. The advancement of the pupils is the single end, and this end must be aimed at by each. Both must see in supervision the effort to secure unity, sequence, completeness of instruction, and equality of opportunity for each child. Changing requirements of education, changes within the school system, entrance of new teachers into the system, and the application of newer pedagogical truths, each and all require that a system of schools be directed by a single intelligence. If each teacher chooses for her school and classes what shall be the course of study, chaos and disorder will result. All other considerations are secondary to the demand for unity, continuity, sequence of instruction and for equivalence of opportunity for all the children of a system. Probably no other demand would be strong enough to maintain supervision as a part of every school system against the opposition of teachers and their friends and the clamors of taxpayers against its high cost. Even if no case of utter condemnation can be made against supervision, is it not worth while to consider the objections and to make use of them to improve the supervision?

Some Expressions of Teachers as to Supervision.

The order of presentation and consideration of these expressions has no significance. They are given just as extracted from a superintendent's notes of visits of teachers who are being supervised.

"I was caught unprepared. What I did is not a fair example of my real work." Such a statement may be and often is entirely true, no doubt. That is no condemnation of supervision nor of the supervisor. The supervisor judges what she observes. She can not do more nor less, except she may take circumstances into account. If not fit nor at her best, the teacher should not go to school for work that day. Having undertaken to teach in her condition of fatigue or nonpreparation, she has assumed all responsibility for the work, and she has merely the right to enter an explanation in justification of her course. The supervisor may accept the explanation and treat it as an extenuating circumstance. If the teacher does not seek to excuse herself for poor work every time that supervisor comes, the teacher will be given the benefit of an indulgent criticism. It is only repeated and continual excuses for not doing well that dispose the supervisor to conclude that the teacher has a phlegmatic sense of responsibility and is making an inferior effort. No teacher can fairly nor prevailingly base her objection to supervision on so frail and superficial grounds. If the teacher really feels that she has been caught unprepared, she should at once request a special visit from the supervisor at a fixed time to do similar work and thus demonstrate that she is capable of more successful effort. Every supervisor will be very glad to make such an arrangement. If the teacher under such a prearranged trial does good work, she has given the supervisor sufficient reason for excusing the first shortcoming, but she has also shown that the supervisor will be right in the future if she demands that the teacher key herself up to good work all the time. The prearranged test has now clearly demonstrated that not lack of ability but lack of sincere determination and of faithful application was the real short-coming. For this lack there can be no excuse and the supervisor will be justified in refusing to overlook repetitions of the fault.

Objections from Experienced Teachers.

"I get fairly sick on the days when I know a supervisor is coming and dread to go to school." This is a clear case of misunderstanding and maladjustment to the purposes of supervision. When supervision and criticism of teaching have become an integral part of the training of all young teachers, such an expression will almost never be heard. If the experiences of the training school do not deter so sensitive a soul from becoming a teacher, they will accustom her to the process, and will teach her the solid comfort of the help which real supervision can and does bring to the conscientious and endeavoring teacher.

The teachers who raise the loudest and most resentful objections to supervision are usually those who have taught longest. They know certain textbooks in certain subjects, and they may know children better than the supervisor. Therefore they assume they do not need supervision, especially should they be excused from supervision by a mere "chit" of a girl who has just graduated from the normal school. When forcibly iterated and reiterated, this contrast between the experienced teacher who is a mature woman, and the fresh graduate who is a young woman, does appear strikingly to favor the teacher's claim to be exempt. Notice, please, the statement says "appear." It is simple appearance, no more and no less. Really, the mature woman with her rich teaching experience believes that thru her experience she can win and hold the children to conformity, effort and obedience.

Let us grant the point: have we lost the case for supervision, have we lost it even for the young supervisor who has just graduated from normal school? If the experienced teacher had used her opportunities for growth and breadth of knowledge, she should and would now be the supervisor in place of the "chit" of a girl. If with all her fine experience she failed to grow, and just went on year after year doing what she did each previous year, then she has shown her inadaptability to become a supervisor, and has equally proved her need of supervision, one of whose main duties and privileges is to carry the newest and best to teachers who fail otherwise to find it. Moreover, if the experienced teacher grew at all but if she had not attained the growth needed to become the supervisor, she will surely have grown enough to be able to see and to appreciate having for supervisor one who has had a broader training and a wider outlook than can be acquired in a single schoolroom in any number of years. The experienced teacher who chafes under a competent "young" supervisor is thus the one who rested satisfied with her attainment when she too was a fresh graduate, and she now resents supervision on "personal" grounds, altho perhaps rather unready to admit this. Having succeeded so long in doing it her way, she does not care to try new ways nor to strive for new goals. Neither objection makes any real weight against supervision. The latter objection, indeed, is one of the best justifications for supervision. The child is living now. His work must be done in the present era. As against the children, no teacher has any right to demand that she be permitted to continue her plans and methods just because she is familiar with them and she dislikes the discomfort of a readjustment. The school is maintained for the child, and it is the business of the school to face the child toward the future and to enable him to fit into that future as a participating, contributing unit.

Objections of teachers to supervision on the ground of greater experience have as much right to consideration as would the teachers' claim to be allowed to go on teaching outworn textbooks in history and geography because they already are familiar with them. If we do not excuse the teacher from adapting her knowledge of facts as

the facts change, why shall she be excused from changing her plans and methods? The chances are that the longer the teacher has been in one place doing one work, the more necessary is supervision. If such a teacher has grown regularly and constantly, she may not need supervision as much as she will be glad for it since it is sure to bring knowledge and opportunity for further growth.

The Frequency of Supervisory Visits.

"How glad I am on the days when no supervisor comes to my room." This may be a very fair cause for rejoicing. If supervisors follow each other thru the rooms of a building in an almost constant stream, then the rejoicing is warranted. Without conceding any reality to this objection as against supervision, it may be admitted as a merited objection to haphazard or to uncontrolled routine of supervisors' visits. We must even admit that no one knows anything authoritatively as to the right frequency of supervisors' visits. There are both rules and opinions about it, but practically no facts. Whether a particular supervisor should come once a month or once a week has not been experimentally determined, nor whether more than one supervisor should visit a teacher in one day. Teachers are very sure they do not want two a day, nor do they want to have one supervisor each day of the week. This rejoicing when no supervisor comes is then the expression of the teacher's feeling that she wants some days in which her schedule need not be disarranged, nor her plans spoiled. If supervisor's visits are arranged and timed with that idea in view, the routine of procedure will be much smoother.

The nature of the study supervised, the temperament of teacher, pupils and supervisor, the training of the teacher, and other considerations must be weighed in making up the schedule of visits, of course, but certain it is that most commonly the determining factor of frequency is calendar divisions of weeks and months, as, so many visits per week or per month. If not one supervisor each day, what does seem a justifiable or permissible frequence? As a proposal for discussion it would seem safe to suggest that there should be at least the time of two school days between the visits of any two supervisors and one or two weeks between the visits of the same supervisor. To this frequence good teachers would not seriously object, hence it may be assumed to represent the average opinion. The use of the word *opinion* discloses the whole trouble: we have opinions but no facts, as has already been stated. The removal of the objection that there is too much supervision is easy if all the supervision work is scheduled and coordinated in the office of the superintendent. A university postgraduate department should study this problem experimentally in the supervisory units lying all about it. Having admitted all this it is entirely in keeping to say that real supervision will not crowd the teacher; will not come at the rate of two or three supervisors in a single day; will not always come entirely unannounced and unexpectedly.

Inequality in Grading.

"My work is graded successful and another teacher whom I know does better work is credited with but 'fair' results." This statement is, of course, believed to be true by the teacher who makes it. The supervisor who sees both teachers' work has a basis of comparison which each teacher lacks. Assuming that the supervisor is working in true professional spirit, her judgment must be accepted. The vivacity, the enthusiasm of the teacher count for so much, hence a mere comparison of lesson plans is not conclusive proof that the teacher with the better plan is going to teach the better lesson. We must not forget, however, that even the best teachers have poor or "off" days. Should the supervisor see a good teacher conduct a poor recitation, it will be necessary to call that recitation poor, or the entire work of supervision is a farce. When the supervisor finds poor results, she must say so. An explanation or even a justification of the poor work may be possible. It should be offered by the teacher and should be considered by the supervisor. The fact that the supervisor found the work poor and said so should root supervision in that teacher's affections, however, and should not make the teacher dislike supervision. That on a given day an average teacher may be adjudged as having taught more successfully than a more gifted teacher, is indubitable evidence of the fairness and of the discrimination of the supervisor. The teacher who has not received the degree of credit which she thinks she deserves, should at once ask the supervisor to point out the ways in which the work might have been improved. If the supervisor can not indicate such improvement, she should revise her judgment of the teacher's work. To admit that supervisors may err is not to condemn supervision: supervisors are no more infallible than teachers.

Those Who Welcome Supervision.

"I wish you would give me another trial. I am confident that I have done better on days when you did not see me than I did today." This is the utterance of the large-visioned, fine-spirited teacher who understands the aims and purposes of supervision, and who has on former occasions experienced the substantiality of the help which the supervisor can bring. In such a case the supervisor will be glad to suspend judgment until the next visit, or, if possible, will at once fix a time for the demonstration. Some have the notion that it is fair for the supervisor to try to catch the teacher in an "off" lesson. There is no ethical or pedagogical justification in such a procedure. From teachers as from pupils, we get almost entirely in proportion to our expectations. If now in the demonstration lesson the teacher shows that she can do very well, both teacher and supervisor have right and reason on their side in determining that the teacher should not be allowed nor should she allow herself to do poor work. Having taught the one lesson well and satisfactorily, the teacher has an experience which will help her in all future lessons, the sense of having succeeded once. Here supervision has performed its assigned duty, namely, made the teacher a better teacher.

"Come to see me now, I have corrected my fault." This is like the former, proof of a correct conception of supervision and readiness to help to attain the ends for which supervision exists. This teacher has worked her way out of her difficulty and has done it herself: can supervision have completer justification? Many teachers work under supervision in this spirit, altho it may not be very apparent. The reason for that is that the beneficiaries who are aware of their benefits are grateful and say little. The malcontents are dissatisfied and are ceaselessly telling their grievances. The latter thus seem a multitude, and the former seem non-existent.

The Desire to Advance.

"The supervisor's judgments of my work have helped me get my present good position." Does that teacher believe in supervision? Does she complain about it? That not all teachers have such an experience is largely due to the fact that during the experience of being supervised they behave so differently about supervision and toward the supervisor. To profit by suggestions of the supervisor, and to incorporate them in the procedure of instruction and drill would be shrewd policy if it were nothing more, but it is something more, it is open-mindedness, it is the spirit of learning a better way, it is the desire to become more powerful; is it not easily evident why one teacher profits by supervision and why the other deteriorates under it?

"Your supervision and your criticisms have made me such a teacher as I am." This is a generous tribute to pay to a supervisor, and it is more common than outsiders suppose. Even if the teacher's estimate is partly true, namely, that the supervisor's faith and expectation of good work has been an ever-present stimulus to effort, the teacher's reaction to suggestions and criticisms must also be remembered. They too were indispensable in making the teacher what she has become. The principles of supervision may be "unformulated" as Dr. Hosic says, and the practice may be wholly empirical as yet. None the less is there a need for supervision, a justification for it, even if present objections and protests of some teachers be justifiable. Lifted above personality into the region of detachment and impersonality, and maintained on the level of purely professional work conducted in the atmosphere of judicial procedure, there is a large field for supervision. These truths are rapidly disclosing themselves, and the criticism of supervision is powerful in preparing the way for this emergence.

CHILDREN'S VICTORY LOAN PARADE IN NEW YORK CITY.

Fifteen thousand children participated in this parade in thirteen groups representing the thirteen original states. Photo by Underwood & Underwood.

THE ABILITY OF A CITY TO FURNISH FUNDS FOR THE ADVANCEMENT OF EDUCATION WITHIN ITS BORDERS

N. L. Engelhardt, New York City

(Conclusion)

Paterson's cost per pupil in average daily attendance is less each year than that of the median city. The difference between these two factors has increased over this period of years until in 1915-16 Paterson had fallen $9.39 lower than the median. If it were possible to point out that irrespective of the low expenditures, Paterson had maintained its school system at the standard reached in other school systems which were spending more money per pupil, the fact would be gratifying. The probabilities are, however, that failure on the part of the school system to keep pace with increased costs in all other enterprises means a lowering of standards or the demand for unreasonable sacrifice which can under no conditions be more than temporary. That other cities have found it necessary to spend more money for education is one good reason why Paterson should follow their leadership. In no clearer way could Paterson's failure to keep pace with the increased expenditures of other cities for education be pictured than by the distribution of Table IX. The progress of Paterson and the median city is shown during the period of the distribution. The trend of the table is distinctly upward. Paterson's position appears static.

Data for all 33 of the selected cities were not available in the annual reports of the Commissioner of Education for computing the costs per pupil in average daily attendance for each of the years 1907-16. Such data as were available in the Commissioner's reports were utilized in making Table X.

TABLE IX. THE DISTRIBUTION OF CITIES NORTH OF THE OHIO RIVER AND MASON-DIXON LINE AND EAST OF THE MISSISSIPPI RIVER, HAVING POPULATIONS OF 25,000 OR OVER ON THE BASIS OF THE AMOUNT SPENT FOR SCHOOL MAINTENANCE PER PUPIL IN AVERAGE DAILY ATTENDANCE FOR THE YEARS 1907-1916.

Number of cities spending per pupil in average daily attendance a sum from

Years	$16-20.99	$21-25.99	$26-30.99	$31-35.99	$36-40.99	$41-45.99	$46-50.99	$51-55.99	$56-60.99	$61-65.99	$66-70.99	$76-80.99	$81-85.99	$86-90.99
1907-08	1	9	32	P41*	29	8	4	..	..	..	..	..	..	..
1908-09	1	7	P36	42*	26	14	3	..	1	..	..	..	..	..
1909-10	..	5	P25	37*	30	10	7	1	2	..	..	..	..	..
1910-11	..	6	P14	28	27*	12	6	2	1	1	..	..	..	..
1911-12	..	4	17	P26	33*	24	10	4	..	..	1	..	..	..
1912-13	..	2	8	P32	35*	23	10	8	3	1	..	..	..	..
1913-14	1	1	9	P29	36*	23	17	11	3	..	..	..	..	..
1914-15	..	..	7	P20	36	27*	15	7	9	2	1	..	..	..
1915-16	..	1	4	P20	27	34*	24	14	9	1	..	1	..	..

* The median city falls in this group.
P = Paterson.

TABLE X. COST PER PUPIL IN AVERAGE DAILY ATTENDANCE IN THE SELECTED GROUP OF CITIES AS COMPARED WITH PATERSON'S COST. 1907-08—1915-16.*

	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Number of Cities for which Data were available	28	30	24	18	29	28	28	30	30
Paterson's Rank	20	28	21	18	26	25	26	29	27
Lowest Cost	$23.99	$23.83	$24.65	$28.94	$24.16	$29.04	$26.50	$30.66	$32.66
Highest Cost	41.94	45.61	48.81	48.51	52.11	53.67	54.16	58.50	60.92
Average Cost	33.68	35.29	36.46	38.46	38.72	39.46	41.07	42.29	43.58
Cost in Paterson	31.61	28.23	29.55	28.94	31.27	33.85	33.16	32.70	33.82
Amount Paterson is Below the Average	2.07	7.06	6.91	9.52	7.45	5.61	7.91	9.59	9.76

* Annual Reports of the U. S. Commissioner of Education.

Practically the same conclusions hold for the 33 cities as were found to be true of all the cities of Table X. In 1915-16 Paterson was $9.76 below the average of the group in expenditure per pupil in average daily attendance. In no other year was the difference as great as that of 1915-16. Paterson has not been progressing in her expenditures for schools at the same rate as the average of the selected cities.

Since Paterson's expenditure per pupil in average daily attendance has been quite low, it should be ascertained on what items of the budget the greatest economy has been practiced. The comparisons given in Table XI have been confined to nine major items:

1. Expenses of administration — including boards of education and business offices and superintendent's office.
2. Salaries and expenses of principals and supervisors.
3. Salaries of teachers.
4. Cost of textbooks, stationery, and supplies, and other instrumental expenses.
5. Wages of janitors and other employees.
6. Cost of fuel, water, light, power, and janitor's supplies.
7. Cost of maintenance, repairs, and replacement of equipment.
8. Promotion of health.
9. Libraries, payments to other schools, rent, pensions, transportation of pupils, and the like.

The expenditures are from the last available report of the Commissioner of Education, i. e., for the year 1916. The basal unit is the pupil in average daily attendance for that year. If Paterson had been the median city in this table, instead of ranking as low as was done on the nine items, the following additional sums of money would have been available for those items for the year 1915-16.

Item 1—Administration ..... $ 9,668.00
2—Principals and Supervisors.. 20,664.00
3—Salaries of Teachers..... 65,784.00

TABLE XI. EXPENDITURES IN THIRTY ONE* CITIES ON NINE MAJOR ITEMS OF SCHOOL MAINTENANCE, BASED ON PER CAPITA OF AVERAGE DAILY ATTENDANCE. DATA FOR SCHOOL YEAR 1915-16.**

Expenditure Per Pupil in Average Daily Attendance for

CITY	1 Administration.	2 Principals' and Supervisors' Salaries.	3 Teachers' Salaries.	4 Textbooks, Stationery and Other Supplies.	5 Wages of Janitors and Other Employes.	6 Fuel, Water, Light, Power and Janitors' Supplies.	7 Maintenance, Repairs and Replacements.	8 Promotion of Health.	9 Libraries, Pensions, Transportation, etc.
Columbus	$1.24	$4.16	$32.82	$1.17	$3.71	$1.60	$1.51	$0.21	$1.69
Toledo	1.59	3.34	29.87	1.85	2.55	1.83	2.09	.52	1.05
Worcester	1.40	4.01	31.01	2.03	3.42	2.53	2.66	.18	.35
Syracuse	.91	6.41	22.07	.92	2.52	1.85	3.99	.56	.16
New Haven	.70	1.02	24.47	4.10	2.59	1.97	.24	...	.13
Scranton	1.60	3.50	19.82	2.01	2.75	1.59	2.18	.36	.39
PATERSON	.86	3.13	23.94	1.49	2.44	1.09	.80	.09	.04
Fall River	1.32	4.60	28.20	2.03	4.30	1.23	3.07	.17	.32
Dayton	1.05	3.27	24.98	1.11	2.44	1.54	3.16	.30	.42
Grand Rapids	2.36	4.95	36.00	2.52	3.70	2.68	2.97	...	.94
Lowell	1.00	.56	26.05	2.66	4.83	2.31	.53	.33	2.82
Cambridge	2.04	4.22	33.31	2.44	3.79	1.45	1.53	...	.03
Bridgeport	.92	3.24	25.49	1.38	1.98	1.30	1.94	...	.16
Albany***	1.21	5.47	28.68	3.24	2.83	3.55	1.79	.58	.86
Hartford	.80	5.12	32.27	2.52	3.48	3.27	4.13	.08	2.32
Trenton	1.56	****	****	2.34	2.51	1.61	2.09	.67	.18
New Bedford	1.37	4.71	24.60	1.34	3.14	2.21	.70	.18	.30
Reading	2.26	1.51	19.47	2.61	2.59	1.71	1.39	.42	.71
Camden	1.43	4.28	28.17	3.29	3.30	1.99	2.95	.41	.70
Lynn	1.47	2.68	24.03	1.76	2.97	2.15	1.05	.20	.47
Springfield	1.91	5.09	36.39	5.39	4.22	4.00	3.07	.60	.19
Lawrence	1.14	5.49	26.44	1.38	2.63	2.33	2.14	...	.85
Yonkers	1.82	5.73	36.52	2.84	3.21	2.37	2.09	.42	.32
Youngstown	1.04	4.22	29.59	1.91	3.76	2.03	3.11	.30	1.92
Somerville	.79	3.48	19.52	1.71	2.40	2.59	1.76	.31	.16
Troy	1.80	6.40	30.84	.78	4.59	3.05	1.74	.92	4.06
Utica	1.48	3.32	29.23	1.39	2.71	2.99	2.11	.60	.03
Waterbury	1.07	4.26	20.92	1.16	1.69	2.18	2.01	...	.17
Schenectady	.99	4.47	27.41	1.66	3.14	3.00	1.66	.87	.49
Hoboken	2.48	3.53	41.09	1.79	4.33	2.03	2.37	1.04	.37
Manchester***	1.48	6.31	20.28	2.06	2.23	4.35	.28	...	.54
Rank of Paterson	28	27	25	22	26.5	31	27	23	29
Median City	$1.37	$4.22	$27.41	$1.91	$2.97	$2.03	$2.09	$0.30	$0.39
Amount Paterson is below median	$0.51	$1.09	$ 3.47	$0.42	$0.53	$0.94	$1.29	$0.21	$0.35

* Data for Wilmington and Elizabeth not available.
** U. S. Commissioner of Education Report for 1917, pp. 202 ff.
*** Data for 1914-15.
**** Report does not separate these data.

4—Textbooks and Supplies.....	7,962.00
5—Wages of Janitors, etc.....	10,047.00
6—Fuel, Water, Janitors' Supplies, etc.	17,820.00
7—Maintenance, Repairs, Replacements	24,455.00
8—Promotion of Health.....	3,981.00
9—Libraries, Pensions, etc.....	6.635.00

Paterson's average rank in the group of cities on all items of Table XI is 26. That this is the lowest average rank for all the cities, as shown in Table XII, makes it clear that additional appropriations for education would be of great advantage to the Paterson schools.

34— 35.99	2
36— 37.99	0
38— 39.99	0
40— 41.99	1
Total	206 cities
25 Percentile	$ 9.33
Median	14.68
75 Percentile	20.24
Paterson for same period	15.31

Paterson ranks above the median of all cities in this tabulation. Ninety-six other cities out of the two hundred and six have appropriated more than Paterson during this period for school buildings on the basis of per capita of total population.

TABLE XII. RANKS OF THE THIRTY-ONE CITIES OF TABLE ON THE NINE ITEMS OF SCHOOL MAINTENANCE OF THAT TABULATION.

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Average Rank
Rank on										
Columbus	18	17	6	27	8	25	24	18	5	16
Toledo	9	19	10	17	23	22	15	9	6	14
Worcester	15	18	8	14	11	10	9	20.5	18	14
Syracuse	27	1	25	30	24	21	2	8	26	17
New Haven	31	29	22	2	21.5	20	31	28	28	24
Scranton	8	21	28	15	18	26	11	13	16	17
PATERSON	28	26	24	22	26.5	31	27	23	29	26
Fall River	17	11	14	13.5	4	30	5.5	22	19.5	15
Dayton	22	24	20	29	26.5	27	3	16.5	15	20
Grand Rapids	2	9	4	8.5	9	8	7	28	7	9
Lowell	24	30	18	6	1	13	29	14	2	15
Cambridge	4	15.5	5	10	6	28	23	28	30.5	17
Bridgeport	26	25	19	24.5	30	29	18	28	26	25
Albany	19	6	13	4	17	3	19	7	8	11
Hartford	29	7	7	9	10	4	1	24	3	10
Trenton	10	..	..	11	25	24	15	4	23	14
New Bedford	16	10	21	26	14.5	14	28	20.5	21	19
Reading	3	28	30	7	21.5	23	25	10.5	10	18
Camden	14	13	15	3	12	19	8	12	11	12
Lynn	13	27	23	19	16	16	26	19	14	19
Springfield	5	8	3	1	5	2	5.5	5.5	22	6
Lawrence	20	5	17	24.5	20	12	12	28	9	16
Yonkers	6	4	2	5	13	11	15	10.5	19.5	10
Youngstown	23	15.5	11	16	7	17.5	4	16.5	4	13
Somerville	30	22	29	20	28	9	20	15	26	22
Troy	7	2	9	31	2	5	21	2	1	9
Utica	11.5	23	12	23	19	7	13	5.5	30.5	16
Waterbury	21	14	26	28	31	15	17	28	24	23
Schenectady	25	12	16	21	14.5	6	22	3	13	12
Hoboken	1	20	1	18	3	17.5	10	1	17	10
Manchester	11.5	3	27	12	29	1	30	28	12	17
Youngstown	50.54	13								
Somerville	19.31	32								
Troy	63.88	8								
Utica	33.90	24								
Elizabeth	35.05	22								
Waterbury	59.22	11								
Schenectady	48.83	16								
Hoboken	44.15	18								
Manchester	17.12	33								

* Financial Statistics of Cities, 1916, pp. 320 ff.

The funded net debt incurred in the erection of school buildings as existing in 1916 in all cities of the United States from 50,000 to 300,000 population is shown in Table XV. Paterson, with a funded debt of $2,005,000, ranks high in the list. Only seven cities of the group mentioned have funded school debts exceeding this amount.

TABLE XV. FUNDED DEBT INCURRED IN THE ERECTION OF SCHOOL BUILDINGS AS EXISTING IN 1916.

Debts of	In cities whose population in 1916 was* 100,000 to 300,000	50,000 to 100,000
Less than 100,000	1	5
100,001— 300,000	..	8
300,001— 500,000	..	12
500,001— 700,000	3	9
700,001— 900,000	4	6
900,001— 1,100,000	4	5
1,100,001— 1,300,000	5	5
1,300,001— 1,500,000	8	6
1,500,001— 1,700,000	7	1
1,700,001— 1,900,000	1	3
1,900,001— 2,100,000	3	1
2,100,001— 2,300,000	1	1
2,300,001— 2,500,000	..	..
2,500,001— 2,700,000	..	..
2,700,001— 2,900,000	..	..
2,900,001— 3,100,000	..	..
3,100,001— 4,000,000	5	..
4,000,001— 5,000,000	1	..
5,000,001— 6,000,000	..	..
6,000,001— 7,000,000	..	..
7,000,001— 8,000,000	1	..
8,000,001— 9,000,000	..	..
9,000,001—10,000,000	..	..
Over 10,000,000	..	..
Total Number of Cities	44	62
Median Points**	1,225,000	633,000

* Compiled from Financial Statistics of Cities, 1916, pp. 326 ff.

** Approximate.

The following summary presents a re-statement of Paterson's ranks on each phase of financial comparison as clearly as can be shown from available data.

Paterson's Ranks on Financial Tabulations.

	Paterson as compared with 32 selected cities, 1916
Total true valuation of property	15
Per capita true valuation of property	26
Tax levy per $1,000 true valuation, years 1909, 1910, 1911, 1912, 1913, 1915, 1916	23-27-25-26-30-25-17
Per cent of city expenditures devoted to schools	9
Per capita expenditures for schools	21
Per capita expenditures for city maintenance, including schools.	29
Cost per pupil in average daily attendance	27
Expenditure per pupil in average daily attendance for administration	28
For principals' and supervisors' salaries	27
Teachers' salaries	25
Textbooks and supplies	22
Wages of janitors, etc	26.5
Fuel, water, light, and janitors' supplies	31
Maintenance and repairs	27
Promotion of health	23
Libraries, pensions, transportation, etc.	29
Per capita expenditures for school buildings, 1899-1916	11
Per capita net debt	21
Funded debt	26

Have Paterson's per capita expenditures for school buildings kept pace with those of other cities? The answer is given in Table XIII. Here are presented the per capita expenditures for school buildings for all cities over 25,000 for which the basic data were available in the annual reports of the United States Commissioner of Education. The period covered includes the years 1900-1916. The population for each city for the period 1900-1910 was estimated by taking the difference between the United States census figures for 1900 and 1910, dividing this difference by ten, and adding the increment thus obtained to each successive year beginning with the year 1900. The populations for the period 1900-1916 were taken from the estimates found in the Finincial Statistics of Cities.

TABLE XIII. DISTRIBUTION OF PER CAPITA EXPENDITURES FOR SCHOOL OUTLAYS FOR 206 CITIES FOR TOTAL PERIOD 1899-1916.

All Cities.

Amount	No. of Cities
0—$ 1.99	6
2— 3.99	11
4— 5.99	11
6— 7.99	9
8— 9.99	21
10— 11.99	15
12— 13.99	20
14— 15.99	29
16— 17.99	12
18— 19.99	18
20— 21.99	17
22— 23.99	8
24— 25.99	12
26— 27.99	5
28— 29.99	4
30— 31.99	3
32— 33.99	2

Paterson's City and School Debt.

If Paterson's net debt incurred for past municipal activities had been extremely overburdensome as far as the payment of both interest and principal was concerned, it might be accounted as additional reasons why the current expenditures for all municipal purposes should be kept low. Paterson, however, was not in 1916 burdened with an excessive net debt as compared with the group of selected cities. As shown in Table XIV, Paterson's rank is twenty-one in the list of thirty-three cities on the basis of per capita net debt.

TABLE XIV. PER CAPITA NET DEBT* OF PATERSON AND THIRTY-TWO OTHER CITIES.

City	Per Capita Net Debt	Rank in Net Debt
Columbus	$49.08	15
Toledo	64.28	7
Worcester	49.63	14
Syracuse	64.70	6
New Haven	30.59	27
Scranton	19.83	31
PATERSON	37.00	21
Fall River	41.82	20
Dayton	52.92	12
Grand Rapids	30.87	26
Lowell	24.39	29
Cambridge	61.87	9
Bridgeport	31.05	25
Albany	67.10	5
Hartford	91.43	1
Trenton	28.66	28
New Bedford	70.55	4
Reading	20.54	30
Camden	46.10	17
Lynn	43.06	19
Springfield	74.81	3
Wilmington	59.45	10
Lawrence	34.29	23
Yonkers	91.02	2

SYSTEMATIC SCHOOL WELFARE WORK

Albert S. Davis, New Haven, Conn.

Seven years ago, more or less, I remember sitting thru some sort of a meeting of school superintendents, listening, or trying to listen to the remarks of a cultured gentleman who had spent six weeks abroad studying the German scheme of education. As I recall it, my mind was rather more occupied at the time with some interesting personal reflections on the possibility of getting my own candidates elected to the school board, than on the multitudinous advantages of importing certain German methods of efficiency into our own school systems.

A considerable amount of water has flowed under the bridges since that time, and a number of events of a varied character have taken place during this period, which have since led me to believe that my reflections that particular afternoon may have been as profitable, in the light of after events, as a closer attention to the address of the gentleman aforesaid on the subject of German efficiency.

Yet, out of these rather clouded recollections, one point made remains clear—the continued need of organization tending toward greater efficiency in school work, differing from the German ideal in one big respect—that there should be a sympathetic dealing with the child rather than a cold-blooded scheme of creating a race of supermen.

Extra-Curricular Activities.

We have heard a good deal about the instincts of children, and we have done a lot of talking about the different ways of developing these instincts along the right lines. I suppose most of us would admit that the schools should offer something more than a hard desk, a set of books, a curriculum and a minimum of 180 school days. And, no doubt, we have provided a good many safety valves for the expression of these instincts about which we have learnedly talked.

Granted that this is true, and that we are providing and permitting to exist these outlets, let us honestly ask ourselves a question and honestly try to answer it—which have we more carefully organized, education as prescribed in the curriculum, or the other form of development which is not found in the pages of our manuals?

I think the answer is fairly obvious. Most of us have taken the attitude of the old Irish washer woman—that "children are sent to school to be learnt."

Unfortunately for this precept, however, the children seem to have some ideas on their own account; and so long as children are children, they will just naturally go on playing baseball, holding shows and dancing in the schools. We don't want to stop them, and we do like to encourage them; but since these students' affairs and kindred associations are of constant occurrence and of admitted good, doesn't it seem advisable that we should look after them a little more closely than we have been doing—not in the way of interference, but in giving help and organizing?

Which brings me to the subject of systematic welfare work among children in the school.

What Is Welfare Work?

Just what do we mean by welfare work, anyway?

I have the idea that this term originated in the expression of activities among people beyond school age. And, for a further definition, let us look into the welfare proposition as we find it in industry. And, remember, that all work is industry, no matter what its form may be.

Let us suppose that a plant of some size has been established in a community. The actual work of erection has been completed; the machines and equipment have been installed; the raw product is ready for conversion; the sales force is champing at its bit; the employes have been hired—in short, the plant is ready to begin production and the wheels start turning.

What place does welfare work assume in such an organization? A lot of money is being spent in answering this question, and a whole lot more will be spent as time goes on.

Well, this work is naturally divided in two parts—naturally, because the employes work in the plant but live outside, and welfare work goes on in both directions.

If my memory is correct, the movement along this line began about 1830 among the newly established plants in New England. New conditions were being created; competition for labor was keen, as it is keen now, in spite of the figures showing temporary lack of employment. And our New England friends were not slow to realize that ideal conditions, both inside the factory and out, tended to produce more and better production, simply because it is human nature to respond better to considerate treatment and arrangements.

Welfare in Industry.

Any employer knows that the employe must work under conditions satisfactory to himself or he will quit, let alone the expression of the worker thru the unions. The man's living conditions at home must be satisfactory or he will try to get another job in another town. The contented, happy workman is found in the shops where there is adequate recognition of these two basic conditions affecting his life, and where adequate provision is made to satisfy these conditions.

Granted that the preceding paragraph is true, let us consider some of the methods used to satisfy the worker.

We shall assume that the shop is clean, well lighted and ventilated, adequately heated, and fairly accessible; that there are proper safety devices on the machines; that the hours of labor are satisfactory; that rest periods, not chargeable against the employe's time card, are provided; that there is a decent, clean place provided to eat; that the wage scales are adjusted so the worker feels he is receiving a just remuneration for his time and effort; that the man feels reasonably secure in his job. So much for inside the plant.

Let us further assume that housing conditions are equally satisfactory; that the homes are respectable and convenient to the plant, markets, schools and churches, that rents are not excessive; that conditions are generally such that the man's family is able to live in comfort.

Provision for all the above is a legitimate part of welfare work. It is obvious that there is a great deal of planning necessary to bring these ideal conditions into existence; and it is equally obvious that a great deal of follow-up work is necessary to hold these conditions level and improve on them. It is a matter requiring constant study and the closest kind of attention.

Elements That Make for Contentment.

But there are other elements entering into a worker's contentment that must be provided; his physical well being, his moral and his mental sides must be equally recognized. Human nature demands expression of these characteristics.

So it is that activities of every description are carried on within the plant to provide for these elements. Gymnasiums, proper accommodations for all forms of athletics, libraries, shop schools, music, lectures, entertainments, pension and sick funds, insurance, vacations, free hospital facilities, rest rooms, food sold frequently below actual cost, shop papers, prize contests, clubs, picnics, vacation camps and farms, loan funds, visiting nurses, special conveyances to and from the plant and a hundred other activities and accommodations—these are all parts of welfare work.

This costs money. It costs a great deal of money. It adds greatly to the overhead, to say nothing of the added burdens imposed on the Personnel or Employment Department, under whose direction, or that of the industrial branches of the Y. M. C. A. and the Y. W. C. A., the greater part of this work is ordinarily carried on.

Further, let no one think that employes are easily satisfied to have this welfare work thrust upon them. Possibly workmen are a little suspicious; possibly they resent what may seem a form of paternalism; possibly they may consider some or all of these features as charity and resent it. The work must largely be unostentatious; it must be of the employes rather than for them; it must be shrewdly planned, timed and executed; it requires patience, time, unusual energy and a great amount of adaptability and executive ability on the part of the person responsible for its success.

Well, if all this is true, what's the use of it?

The question has already been answered; these are conditions that produce contentment in a plant; and contentment is a big factor in morale; and I believe it is certainly true that morale is a tremendous factor in production.

So much for welfare work in industry.

Now let's figure what we can get out of this industrial welfare work for our own school jobs.

Similarity of Shop and School.

In many ways the life of the pupil in school and the life of the worker in industry are the same. And anyone who knows anything about school work realizes that one of the big problems with which our educational authorities are tinkering is the same problem which has caused a scientific investigation in industry by some of our ablest businessmen—the problem of regulating turnover. The coming and going of employes in a plant is known as "turn-over," and this adds tremendously to the overhead. The coming and going of pupils in school may also be rightly termed "turn-over," and the junior high school and other devices have been created largely to meet the situation. Businessmen realize that there is a need for something else among workers besides getting work out of them, and welfare work is one of the agencies employed. School folk recognize the same need among their pupils, and promote various schemes. But too often, in schools, it seems to me, the work is attempted as a side line by people engaged in what they call "their real job," while the side line does not get the attention it deserves, and correspondingly suffers.

This isn't right. Its unfair to the boys and girls in school, and it is unfair to the teacher or principal saddled with the side line responsibility. If this sort of work among pupils is good for anything, it is worth doing well. Otherwise, it might better be left undone.

Let us compare plant welfare activities with school welfare activities, and see what we get out of the comparison.

Athletics and gymnasiums in industry; yes, we find them in school. Music, glee clubs, orchestras, mass singing, etc., in industry; in school they go on. Mass meetings, gatherings of employes, thrift drives, clubs, dances, plays, picnics and socials in industry; the schools recognize these as old friends. And so we might go on down the list. Where we find a feature peculiar to industry alone we may readily substitute in our parallel column some equally important activity common enough in schools.

Special School Occasions.

And consider for a moment the thousand and one other activities that engage the attention of pupils and which run the gamut from school commencement exercises, special celebrations at Christmas time and legal holidays, to school gardens and even school fraternities. How varied the list and how long it is! You know the story as well as I do.

Now, add to these the lists of outside activities brought into the schools which require attention and at least some regulating. Parent-teachers' associations, art exhibits, school fairs, community parades, boy scouts, rifle corps, etc.—a lengthy list itself. How often the schools are called on to furnish special features for outside entertainments! And how difficult it is to refuse!

Aside from this, come back for a moment to the things we would like to do for the benefit of the pupils for which we rightly say we have no time. Heaven knows we haven't time enough to properly regulate the things that are already going on. Its a job in itself.

I remember very well my conversation with the vice-president of a big company with which I finally hooked up when I went out of school work.

I had answered an advertisement and in reply to an invitation called to see him.

"What does a schoolman do besides teach?" was the first question asked.

Down the list I went, on and on, thru the different phases of purchase of supplies, hiring of teachers, planning of school buildings, keeping of records, watching of finances, to the dreary end.

Cutting Down School Mortality.

I secured the position. I guess he thought that a genius who could handle such a job as this, regulate the activities of the children and at the same time teach them something, was too remarkable a proposition to pass up.

Yet all of us are doing the same things and incidentally taking responsibility for their success or failure. Small wonder that we grow old young!

However, the fact still remains that these activities are worth while—that they help to promote a contented feeling among boys and girls, and as I have said before, contentment brings a higher degree of production and cuts down the turn-over. And you will note that I have said little about the work that should be done to increase the efficiency of the pupils—the study of the individual child, the knitting together of the home and the school, the study of the conditions among which the pupil lives.

Now, then, suppose we summarize the situation as we find it.

In industry we have two distinct divisions, each carefully organized and supervised—the actual work of the employes and welfare work among the employes.

In school work we find for the greater part a very carefully organized system of teaching, and also, a great mass of student activities, for the most part carried on under supervision given as time permits—most frequently as a side line.

THE SOUL OF THE CONVENTION.

Harry R. Trusler.

The wise schoolmen have spoken.
Late last night they abstracted money
From parsimonious purses
With an awkward air of bravado
And left calls for early trains.
The Educational Convention is in limbo
And I am alone in my study.
Silence and a little fire companion me.
The events of the crowded hours
Surge pell mell thru the doors of memory,
And my heart stirs with a great ambition;
For I would know the soul of the convention.

I meditate upon the dowdy thoughts
That recently paraded in dress suits.
I think of the precious ideas
That really, in my opinion,
Should not have been yanked from the museums.
I recall the high-sounding speeches
That squeaked so in the hinges
That a few lubricous drops
Of the celebrated "three in one"
Would have made them smoother and sweeter.
I search hard for wisdom
Among the serious men
And the women who would rival them
In high thoughts for the great destiny
Of a land of unsuspecting youth
And the youth of an unsuspecting land,
Which land is smug, rich, fat and practical,
Clothed in purple and fine linen and respectability,
And kindly tolerant of Educational Conventions.

Not yet have I found the soul of the convention;
But it must have a soul.
So I think hard and deep,
Down thru all verbage, furbelows and trappings
To one single teacher I met at the reception,
Who was not even "a distinguished educator."
But she was a radiant girl—
A girl whose tread was deft and vital as a panther's—
Whom the West had cradled in gold arroyos
And fed with the scent of sagebrush
And gladdened with the sight of purple mountains
And thrilled with the majesty of wind-swept distances
And taught the wondrous possibilities of a friend.
My search is ended:
Everything else may go hang—
Here is THE SOUL OF THE CONVENTION.

Not many superintendents can know all about athletics, all about music and its kindred associations, all about the school social affairs, all about the work of the outside organizations in the community affecting school life, and all the other detail going into students' activities; and those who do happen to have this knowledge haven't the time to devote to what becomes very largely a night and day project.

How on earth, then, can he give these affairs his personal supervision?

Answer: He can't.

If such is the case, what is the logical solution?

Why not try the plan offered in industry?

The Plan of Organization.

What we propose is a two-fold system of organization, the first governing the work of teaching, care and maintenance of the school plant, the organization of the actual work in the school—in short, practically everything except the handling of the students' socalled outside activities.

The second part of this organization would call for the creation of a department, handled by a person known as the Director of Students' Activities, whose immediate superior should be the superintendent of schools. I would not use the term "Welfare Worker."

Under his jurisdiction should come the direction of the physical activities of the pupils, and all the exhibit work of the various musical, art, manual training, domestic science and elocution teachers. Naturally he should direct much of the work of the nurses, the school physicians and the attendance officers, and keep intelligent records of their efforts.

Depending, of course, on the size of the system, this director, either personally, or thru his staff, should attend and largely direct the various affairs participated in by the students. He should be, by virtue of his position, an officer or an advisor in the several student organizations. Control of their finances should come under his direction, and he should personally be responsible for the accounting and spending of their money. He should be of great assistance in bridging the gap between the school and the home. His work should go out into the homes of the pupils. The proper management of the lunch room, the safety of the pupils, control of the general sanitary conditions in the schools are included as a part of his supervisory work. Further, he should represent the schools in the meetings of the various county and state athletic leagues and in the arrangement of the debating, prize speaking and other contests in which the pupils, developed under his supervision, participate. And supervision of all those other student activities which properly are not included in the school's curriculum, should be a part of his responsibility. In short, he is the direct point of contact between the outside affairs of the pupils and schools, and the organization proper.

Unloading the Worries and Troubles.

Without going into details, look back over your own experience and think of the worries and annoyances that you have undergone, coming thru either inadequate supervision or no supervision at all of these interests. Rows with other schools over athletics, trouble with students' money affairs, failures of programs to get across, complaints from overworked principals and teachers—just think back a bit.

Isn't it better business to have some one person to whom you can turn over control of these matters, and whom you can hold responsible not only for their success, but for many of the larger things that go with the student's welfare? Wouldn't this phase of school work be better handled? More efficiently carried on?

Some job! you may say. Yes, it certainly is some job. But the fact that it *is* some job to take care of these activities is all the more reason for creating such a position. No man should go into work of this kind who does not thoroly understand school organization and school work. He must be a man of broad experience in handling children. He must be a man of attractive, winning personality, possessed of a genuine love for children, and a real fondness for association with them. Organizing ability, great adaptability, tact, a keen sense of justice and the ability to be loyal to his work and his associates are absolute requirements. He must be a man of vision, clearly seeing the end towards which he is working, and knowing the road that leads there. It is not a job for a broken-down or superannuated teacher, nor should it be a political plum. No, it is a real work for a very real person.

Responsibility Essential.

About a month ago, while on a western business trip, I spent the night at the home of a school superintendent, with whom I have long been acquainted. It was Friday night, after what had been a peculiarly hard week for him. With some hesitation he remarked that he would have to go out that night to take charge of a basket ball game and a dance. On our way he told me that he liked to go to the games, but there were many such demands on his time, and it really had become a larger burden than he felt he could carry.

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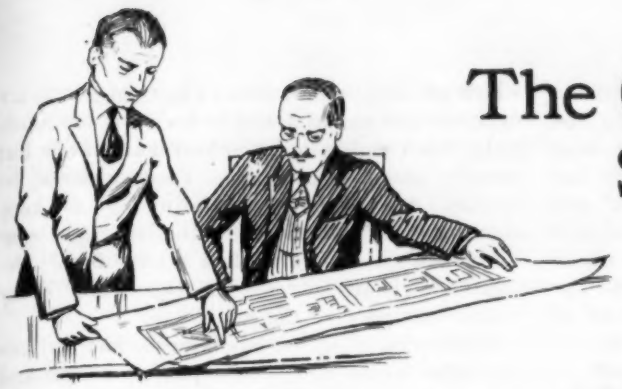

The Consolidated Rural-School Building

Louis W. Rapeer, Ph. D., Director,
National School of Social Research,
Washington, D. C

The heart of the consolidated school plant is the building. It should be thoroly adapted to the purposes for which consolidation has been made. It should be neither a city school set down in the country or village trading center nor a building of the traditional type since the purposes of these are so different. Less scientific thinking and experimentation have been carried on in adapting the building to consolidation than to any other feature. Transportation, teachers' cottages, school barns, the curriculum in relation to country needs, and the rural school as a community center have all been less on a dead level of mediocrity than the building. Educators have introduced or developed the former; educators, unfortunately, too frequently have little or nothing to say about planning and constructing rural-school buildings.

A man who has built a few barns and country or town houses and stores too frequently gets the contract for architectural plans and construction. He knows nothing of education and has probably never heard of school architecture and expert school architects. Frequently the state has done little or nothing to standardize and suggest good plans for school buildings thru the state school superintendent's office or otherwise. The school directors blunder along in the dark and the results of their blundering stand as monuments to democratic stupidity at its worst for fifty years or more, wofully unadapted to country-educational needs and crippling rural schooling at the very first and growing worse each year with the progress of educational thought. The consolidated school building should preferably be twenty years in advance of educational thinking rather than forty to a hundred years behind it.

To be sure there are a growing number of hopeful exceptions to the above critical statements. School architects who are specialists in their profession are becoming every day more in evidence. State laws and state departments of education are gaining more power over school-building operations and a number of excellent examples of what consolidated rural-school buildings should be are in evidence in several states. The national government is also helping in schoolhouse improvement and a great many valuable suggestions are now being brought together by the Bureau of Education and other organizations. The consolidated-school plan of rural development is of too great importance to be damned at the outset by a poor building. The cause deserves the best possible embodiment that present science and invention can devise.

Contrasting Consolidated and City Buildings.

The differences in purposes and conditions between the city and consolidated school are worth noticing. Some of these distinctions which must be kept in mind may be summarized as follows:

1. *Land* is more plentiful and available in the country or adjacent to a village trading center than in the city. The building may, therefore, spread out more and thus obviate the necessity of second and third floors with their greater cost and needless stair climbing. A one-story building with no basement and no part below ground is possible in the country and is educationally much to be desired.

2. The building must provide for *growth and extensions.* The unit plan must be utilized and plans for growth to the fullest consolidated size made at the outset. The one-story building makes this rather a simple problem in the E style here suggested, by simply adding additional rooms on either end of the single row of classrooms and corridor.

3. The country building is commonly without *fire-fighting* departments within easy call and must thus make particular adaptations to the fire hazards. Two school buildings are now burning each day of the year. In the Collinswood fire in a typical two-story building, 168 children burned to death in a few minutes. The one-story plan is desirable here and this should be as completely fire and panic proof as possible. An outside door as well as one into the corridor may be provided for each classroom, no space or structure is beneath or above the rooms, and all pupils could easily jump the three or four feet to the ground out of the plentiful windows on the left.

4. No city *water or lighting* system for the building will usually be available in the country and these will frequently have to be supplied within the building itself.

5. *Transportation* for a number of children in school-owned automobiles or other vehicles and in private vehicles of all kinds will, in the complete rural-school plant, be in operation. The building should be adapted to the loading and unloading of children in such a way as to prevent exposure to rain, snow and cold winds. Some have suggested that the building be constructed with an arcade in order that the vehicles may drive right thru the building; but usually a driveway covered with a porch on a protected side, probably the south or east, will be sufficient. Buildings for storing the vehicles and any horses or other animals used will also be necessary.

6. Modern country life is based on *science,* largely agricultural science and domestic science. Applied botany, zoology, chemistry and physics will be central subjects. These subjects require proper laboratories, beginning at least with the fifth or sixth grade. These rooms require more than ordinary planning to meet country conditions.

8. The city has many places for *recreation and social meeting* apart from the school. The consolidated school is practically the only center to which the whole community may turn for community-center activities. The auditorium is central in such a building. In the E type here suggested it is the middle wing. The gymnasium, library, lunchroom, and kindergarten, if any, may also be located in this wing.

The Only Public Building.

9. Similarly the city has fine public *libraries* and many easily accessible opportunities for reading. The consolidated rural library for the entire community within the transportation area is essential. Such a room requires careful planning.

10. The consolidated school is about the only public building in the open country. It should be *attractive and dignified,* in keeping with its unique educational and social purposes. This does not mean a tall steeple, Grecian columns, or two or three stories. It means simple attractiveness and appropriateness.

11. In the city the *high school* is usually *separated from the elementary schools.* Some cities have also separate buildings for the intermediate grades, sixth to ninth, or other combination. Manual training and domestic science are often given at central points but not at every school. Schools frequently have to go some distance to their athletic fields or school gardens. In the country, however, all these features are *combined in one plant.* High-school and elementary-school pupils are housed in the same building. All other features are likewise concentered, consolidated. The laboratories, library, shops and grounds can be used early in the elementary school as they are in the Gary system. The auditorium will be used by all for all. Each group can help the other. The school life of the child may be kept continuous rather than disparate. This feature alone makes the consolidated-school building a unique problem.

12. The school should be *an object lesson* in its water, lighting, toilet, landscaping, and other features. A pressure tank, force pump, gas engine, flush toilets, independent lighting system, and other modern features that should be installed on our farms frequently go out from such a consolidated school by the contagion of example. In the city, these things are taken as a matter of course, in the home and in the school. No object lesson is necessary.

Orientation of the Building.

13. In the city the building must frequently be located and *orientated* without reference to light, wind directions, etc., because of the small size and shape of the building lot available. In the country, the long outsides of the classrooms can be made to face the east or the west and thus obtain desirable sunlight and other factors and avoid the disadvantages of north and south exposure. In the South and the tropics, the classrooms can be placed broadside toward the prevailing winds, such as the trade wind in the West Indies. Where the one-story building with overhead lighting is used, as here recommended, orientation is not so much to be considered since every room receives sunlight from above. Still it is well to have the left-hand windows of most classrooms, either on the east or west.

This means that the front of the building will be kept as narrow as possible to provide two rows of classrooms, two corridors, the assembly wing, and plenty of space between this wing and the other two to avoid interference with air currents and light.

14. The consolidated school is a *year-round* plant for at least the younger children and the principal and his family. The building must be adapted to summer uses and must be built with the thought in mind that it is always to be under the watchful eye of the principal of the school. In foreign countries, it is quite common for the home of the principal to be in the school building, a custom growing out of boarding-school

times and a wider use of the principal as a community secretary and leader.

15. The building must be as financially *inexpensive* as possible. Our distribution and apportionment of the benefits of taxation are still so unequal and unjust that the locality has frequently to bear more than it should of the financial burden. Consequently, money comes hard and must reach as far as possible. High roofs, stairways, and fancy decorations costing considerable money may well give way to more room for library, auditorium, laboratories, teachers' retiring rooms, principal's office, exhibit room, etc. The flat roof with some overhead lighting, not omitting plenty of window ventilation, may well become typical of the country school—*a low, flat building* it would seem, until one were on the inside and saw its educational advantages. However, financial sacrifice in putting up a first-class building completely fireproof and adapted to rural-life needs is one as worthy as any to be made in this life. Many communities are making noble sacrifices and are reaping almost immediately the full rewards of such sacrifices.

General Standards Applicable.

Thus the consolidated rural-school building is unique and in a class of its own, requiring its own architecture and adaptations. Certain great standards that govern all schools will be applied, but in the main it is an original conformity to new conditions and needs. The opportunity for experimentation and climatic and other adaptations is before us in this era of reconstruction.

The whole problem of ventilation is as yet unsolved. Present scientific investigation has about proved that the important factors in ventilation are not the chemical composition of the air—relative amounts of oxygen, carbon dioxide, and organic matters—so much as its relative conditions as regards movement of the air, temperature, and humidity. Other factors such as relative amount of exercise of the occupants of a room, their physical condition, and clothing and bathing enter in. Since windows are also wind-ows, for wind as well as light to enter, the problem of lighting is inextricably bound up with ventilation, except in those as yet non-existent schools where a good fan system of ventilation is in operation every day of the school year.

To avoid the shadows of the little fists of right-handed pupils on their writing and for other reasons we have as a standard today that at least most of the light of a classroom should enter from the left of the pupils as seated. Many schools have all the light of a room enter from the left and a number of educators have by various administrative and publicity devices enforced the standard. But they overlook the ventilation function of windows or assume that "the fans will be running all the year" or that sufficient movement of air is produced by opening windows on but one side of a room. These assumptions are practically universally contrary to fact and this strict unilateral-lighting fad has done much harm, not only in the tropics where northern school buildings are copied but everywhere in our own country. The writer has dealt with the problem more at length in "The Case Against Uni-lateral Lighting" in the School Board Journal for July, 1918, and "Summer School Sanitation" in The American Journal of School Hygiene (Worcester, Mass.) for June, 1918.

Lighting of Rooms.

In order to give each regular classroom of the typical elementary school size, about 24 to 25 by 30 to 32 feet, the advantages of largely left-hand lighting and east or west sunshine, the typical building is coming to be one with the longer axis running north and south with a corridor between the two rows of rooms, or beside the one row, preferably on the west. In the southwest, but one row of rooms with a long porch is becoming a common type. For hot climates the writer has advocated one or two rows of classrooms covered by a single roof and flanked by porches on both sides and the whole at right angles to the prevailing winds. For the consolidated school the one row in the shape of the letter U or, with the auditorium wing, the letter E is probably best for several reasons.

High windows on the rear and right of the pupils we believe are also desirable. These windows, about the size of the upper sashes on the left, are desirable for ventilation if not for light. Where there is a central corridor it can be very much better lighted by this system than by the unilateral-lighting plan. Of course, our system provides cross ventilation and "perceptible air currents," the breeze going entirely thru the building across the corridor. This is fundamental to good health. Tuberculosis now increases rapidly upward thru the grades and most people get tuberculosis in childhood. It is time to call a halt on this.

The windows on the left of the pupils should extend from about the level of the pupils' eyes entirely to the ceiling. A twelve to thirteen foot ceiling is high enough. These windows, five or six in number usually, should have as little space between them as possible and should extend from about six feet from the front of the classroom entirely to the rear of the room and practically as a single window. Steel mullions instead of brick piers between the windows are best for this purpose. In some schools a large third sash or transom is used to get a full-length window, as may be seen in some of the photographs in this magazine. The sashes should be wide and with single panes of glass. The steel window is being widely used today. For overhead lighting the saw-tooth arrangement on the outside, with the metal planes, within, as used by Perkins, are giving satisfaction.

Window Shades.

The single-sash windows on the rear and right may be about as close together as those on the left. If they are put on hinges at the rear (if opening to the outer air instead of into another classroom or cloakroom) and if those on the right are on pivots, these windows may be easily managed even if above the blackboard level. In very hot climates, or in rooms used for summer classes, ventilators which admit air but not light (horizontal boards set at an angle near together) may well be put in for ventilation even in the *front* of the room.

The best of shades are poor indeed. They frequently obstruct both light and air. The ordinary dark-green shade which has become so common because of the theory that "green is good for the eyes" has ruined more eyes than it has helped, by making rooms dark and cave-like when pulled over the window to cut off the blinding rays of the sun. Such shades should never be used. Light tan is a much better color. The shade should be translucent, letting in plenty of light but toning down the intensity of the direct rays. Cloth shades are about the best. The folding cloth shade has the disadvantage of cutting out light if pulled to the top of the window since it can be folded only to about a foot to eighteen inches in width. The roller cloth shade with the roller hanging by a single cord from the middle top of the window is good. The roller cloth shade with the roller attached at the ends to a cross stick and this attached by a cord to the middle top of the window is the best the writer has seen for combining a number of advantages with the fewest disadvantages. Various hanging slat devices like Venetian blinds which are supposed to admit plenty of gentle air currents and sunlight and to keep out too much light, wind and rain are splendid in theory but usually poor in operation. Teachers must be trained and supervised continually to keep shades properly adjusted for the best light conditions in these book-reading school days. Defects of vision increase in practically every school upward thru the grades.

Workroom, libraries, laboratories, auditoriums and other rooms should have plenty of light and be governed by about the same principles, altho the different seating arrangements for such rooms may make north or south light satisfactory. Below-ground rooms should not be tolerated in such schools, not even two or three feet below the surface. If the consolidated school "keeps to the ground" without either going into it or "up into the air," the lighting problem will not be serious.

Ventilation and Heating Devices.

The consolidated school that deserves the name and is in a latitude where considerable heat must be furnished has a central heating plant—vapor, hot water, steam or hot air. The first three require a separate ventilating device and air ducts thru which air is forced by a fan run by steam, gas or electricity. The hot-air furnace should not be relied upon entirely in cold climates since the air must be over-heated and made too dry. Radiators must be used also. The fan system is by far the best system, fan ventilation with the temperature of the incoming air kept rather cool and stimulating and hot-water, vapor or steam heating in classrooms. There is great and constant danger of overheating the air in the fan room, thus depriving it of moisture and the stimulation of coolness. Each central system of this kind must have a thoro humidifying arrangement. The air-washing system by which the air after passing thru the fan is forced thru a small room in which there is a shower of water forced out of brass nozzles in a fine spray, or mist, is necessary for humidifying and cleaning the air. In such a building the outlet ducts should be connected with the inlet ducts to permit of recirculation of air when desired. The plan has not been tried out yet to any considerable extent but where tried saves about half the coal, takes out odors of the air from classrooms, puts in moisture, and gives the three great essentials of ventilation: moisture, about 50 to 70 per cent of saturation which can easily be measured by a simple hair hygrometer; temperature, about 65 to 68 degrees (with above humidity), and movement of the air, not drafts but perceptible motion. Changing temperatures are more stimulating than a steady one.

Some schools use jacketed stoves but these have no place in a real consolidated school. Of course the consolidated school frequently has to go thru an infancy in which the school is small because of incomplete consolidation of the district, a small but growing population, etc. In such a case these stoves may be used but are not recommended for even a two-room building. Where there is a furnace for a central system and several rooms it should be in a detached fireproof building, not in a basement. The small heating plant behind the school building is best. Of course, a good janitor and man of all work will be provided for a consolidated school.

The Classrooms.

The standard classrooms are the most important features of a school and nothing should be permitted to interfere with them in planning the building. Frequently an architect plans the outside of a building and then, it seems, puts rooms into it where he can. A better plan is to provide the desired number of standard class-

rooms, and add such high-school rooms, auditorium, etc., as are desired, and then make the exterior as attractive as possible consistent with good taste.

A very desirable form for the classroom is oblong with a cloakroom on the front end. The latter may be six to eight feet wide and have two doors entering the classroom but none opening into the hall or porch. The size of the classroom for unilateral lighting may be about 24 by 32, but if the right-hand and rear lighting plan recommended here is used the room may be much wider and need not be so long. In fact, even interior classrooms with the usual twelve to fourteen foot hall, where there will be no light from the rear unless it be thru high windows on both sides of the cloak rooms of another classroom, *the room may be about square, say 27 by 27.* This is an advantage since most teachers divide the class into two sections, right and left, and the wider room makes each group more compact and better to handle for recitation and for discipline than three long rows of children on either side. Seven rows of seats in width and six rows in length is better than its opposite for most teachers and pupils. The personality of at least the ordinary teacher is of short range. The schoolroom of the future will not be long and narrow as they are now being standardized by the standardizers, but probably wide and short.

In fact, with proper overhead lighting, such as Perkins and others have devised, the "standard classroom" of the future will probably be about thirty feet wide by twenty-five long, from front to rear. The wide-short classroom with light from two or three sides and overhead is the best type for probably any school. Perkins' school erected at Holly, Mich., is nearer to these new standards for the consolidated school than any I have seen. Yet his rooms are of the shape devised for unilateral lighting; he does not have right-hand lighting, and his school is planned more for a city block than for the open country. Thus his plan places the auditorium too close to the corridors of the E shaped building, the middle wing being the auditorium. Vernon's Aberdeen, Wash., school is better in this respect for the country consolidated school. Where the wings are at least twenty-five feet from the middle wing on each side better ventilation is secured. The two end wings can be extended to any desired length as extensions are built.

The seats may well be of the movable kind for educational and hygienic reasons. The *blackboards* should be of slate and preferably four feet wide, low enough for the pupils and high enough for the teacher. They should extend around three sides of the room, front between the cloakroom doors, right side and rear. The *ceilings* should preferably be white and the walls light tan down to a level with the bottom of the blackboards and dark tan or buff below. Other combinations that provide a light and cheerful room on even cloudy days are possible. The *floor* should be of hard, non-splintering wood and double. Composition floors are coming in. If the building is of two floors, at least the second-story floor should be soundproofed with deadening quilt of some kind. No *platform* is needed in the modern democratic school. Hard *chalk* only should be allowed. A large window should light the cloakroom. Reference to some of the best books on school hygiene should be made in the *artificial* lighting of schoolrooms. Not only the character of the light but the placing of the lights is important. In the high school, rooms of different sizes are desirable and the cloakroom problem may be solved in another manner. One of the best ways is to provide a steel locker for each pupil. In the one-story type every classroom can have a door opening on the right to the corridor and on the left to the playground.

Other Rooms. A complete consolidated school, one that has grown up, or that has been made a complete plant from the start, will have a good farm-carpentry room, a nature-study and agriculture room, a home economics room, applied chemistry and physics laboratories, a library, an assembly room and study hall, a gymnasium, a teachers' room for each sex, a principal's office, a medical-supervision room, and suitable classrooms for art and other subjects that require special adaptation. Perkins' plan of cloakroom at the rear of the room is also well worth study and use. The wide-short classroom I here advocate for the first time gives a good long blackboard in front.

Toilet Facilities.

The toilet rooms will, of course, be indoors unless water is absolutely unobtainable. Few schools will have to be placed in locations where water is not available. A good septic tank or cess pool with a force pump run by a motor of some kind and a large pressure tank easily make modern sanitary toilets possible. They must be placed also in farm homes if farm women are to be redeemed from constant medieval drudgery. The school must lead and set the pace. The toilets should not be in basements. There should be no basements, remember. They should be well lighted and of the very best. These toilet rooms cannot be too well lighted and adapted to sanitary requirements. The number of stools and urinals and their arrangement have all been worked out carefully and the best of modern help is none too good here. The old out-door privy must be banished. It is only the incomplete, unfinished consolidated school that has this, and it is questionable whether the school deserves the reputation of a consolidated school with such pioneer inconveniences. The cost of first-class outdoor privies with concrete wells, is a considerable share of a first-class indoor-water system. The principal disadvantage of constructing such *outdoor* buildings at the outset of consolidation, aside from sanitary ones, is that they tend to prevent the installation of proper and modern facilities when the building is enlarged. Such buildings when it is necessary to erect them should be models for those at the farms—absolutely fly proof, decent, comfortable, screened by vines and hedge or bushes, and protected from vandalism. Usually such buildings at single-room schools cultivate typhoid-spreading habits since commonly no toilet paper is furnished, and no warm water and paper towels are available to make cleanliness and sanitation habitual. The outdoor toilet is far below modern standards for even the single-room school and the best country homes. It certainly is entirely out of place at a consolidated school. The modern octuple presses of printing plants which turn out a hundred thousand folded complete newspapers an hour are not associated with the hand press of Benjamin Franklin. Such presses as Franklin's are seen today only in museums. Yet at consolidated schools it is sometimes proposed to build outdoor toilets, even when a good water system is easily available and there is no danger of pipes freezing at night. Up-to-date business scraps outgrown machinery and plans. The business of education in a democracy needs a large scrap heap. Septic tanks and, where necessary, cess pools, are as much beyond the outdoor privy as is the rotary beyond the old-time hand press.

The Assembly Room.

The assembly room is the center of community life and of the school's activities. A school that does not come together daily or at least two or three times a week is hardly a school. It is a collection of separate rooms of pupils and teachers that cannot well be moulded into an organized common-group consciousness, with loyalty, responsibility and common purposes. A community that does not meet thus at least once a month is not a community. It is a largely individualistic collection of persons settled in the same area, mainly unorganized and perhaps at variance with one another.

The Gary school system uses the auditorium all day long. It is at Gary, in the Froebel and Emerson schools, may be found a fine theater with a large stage in each, motion-picture apparatus, etc., and used by different groups all day long. But the expense of such a room is justified if it is used but three half hours and one night a week. In a one-story building the auditorium can have a ceiling of any height and the floor can be slanted without interfering with any other rooms. It should be thoroly fireproof and easy of access from both without and within. (See the plans made by Perkins and by Vernon in the April number.) For evening use it should be so arranged as to make possible freedom from interference with the classrooms, laboratories, etc. In many schools, this room can be utilized as a study hall and in some cases also as a lunch room. In small buildings two or three classrooms may be thrown together, by sliding partitions, into one assembly room. In the best cases movable school desks are used and in others still using the old variety, the desks are screwed to strips of wood which rest on the floor. Thus three or four, or more, desks can be pushed out of the way for chairs. In some cases a space under a permanent stage is arranged for small desks. The assembly-room feature deserves a special bulletin of the Government. We cannot take the space here to do much more than mention and recommend some of the features which help to make the consolidated school building a productive, rural-educational plant.

Types of Buildings.

Remembering that a consolidated school building in its infancy may be but a two-room building and that it may be a long time in growing up, we realize that the types of buildings will range from the small two-teacher graded school with few rural-education conveniences up to those complete plants that vie in cost and scope with the best city schools. In standardizing consolidated schools these types must be arranged for. Standards for the building alone, for the building and entire site, and for the building, site, and instruction may be set up and promulgated and enforced. Plans for several different sizes of buildings must be prepared. All must be devised with reference to future extensions, both of classrooms and of the other features suggested above such as assembly room, gymnasium, high-school department with laboratories and library, agriculture and home-economics rooms, indoor toilets, etc. Plans now on foot would place the post office in many schools of the country and make the postmaster not only a community secretary, helping the school principal, but a community middleman for marketing and purchasing commodities. Public libraries and voting rooms are being provided in many city schools.

It is recommended that wherever possible the taxing and transportation area be made large enough at first to make possible the erection of not less than a four-room graded school with auditorium, hot water or other central heat, indoor toilets of the water-flush type, a library, home economics and agriculture rooms, and a teacher's room. To insure proper care of the building and the full utilization and care of the plant not less than fifteen acres of land should

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Elements of Progress in School Supervision

Supt. Howard E. Shimer,
Belvidere, N. J.

Supervisory officers are the product of the needs of boards of education and not of the teaching force. With the growth and expansion of the public school system came increased clerical duties to which members of boards of education could not give the necessary attention. To relieve them of these clerical duties, superintendents were appointed as early as 1837. It took but a short time for the clerical duties of the superintendent to expand so as to include inspection. The rapid growth of the school population and the resulting increase in the number of buildings and of the teaching force demanded the services of those whose official relation to boards had already been established.

So long as the old standards of public school achievement remained unchallenged, there seemed to be little need of a superintendent of a different type. It was necessary only that he be a painstaking clerk and an honest and dependable inspector. Even before the dawn of the twentieth century, however, progressive boards began to question this type of supervision. They reasoned that a superintendent should not only keep records and report on teachers, buildings, and equipment but that he should supervise instruction and map out school policies. From this it was but a step to prove to communities what is the real purpose of school supervision.

The same analysis might be applied to the development of the functions of the classroom teacher. At first, she was little more than a bookkeeper. Then she became an inspector—"hearing" the lessons to see whether the children had committed the facts in the textbooks. Only recently, however, have we stressed the important fact that she is a supervisor of the instruction—a function that deals with the development of the child.

Perhaps, a further illustration would not be amiss. The functions of medical inspection are still in the process of development. Altho we have long felt that the recording of the physical defects of children and the inspection of the sanitation of school buildings and grounds were inadequate, it required the lessons of a world war to teach us that medical supervision rather than medical inspection is what we need.

But this development in the functions of the various departments of the school system is but a type of the condensation, differentiation, and unification that has taken place in the business world. The factory, small at first, required a manager who was also its bookkeeper. As business increased, he was relieved of his clerical duties and became an inspector whose chief responsibility was to see that the factory turned out the product. With the rapid expansion of business has come a new type of manager—a man who knows the business and keeps it growing, a man who has the vision of the future and translates that vision into the finished product.

Since supervision resulted from specific needs in school administration, it is well to inquire how progress in supervision is determined. In the first place, the personal fitness of the supervisor is responsible for much of the progress that has been made. He must have had good training and experience. He must have a high sense of personal honor that recognizes no surrender. He must have the missionary spirit—a willingness to be forgotten. He must remain in the background as much as possible to serve the best interests of the schools; for, while personalities frequently clash, policies seldom do. He must have a keen sense of time in order to prevent him from being absorbed by the details of administration. He must also have the ability to get things done. He must not try to be an Atlas; for the burden is too great and Atlas turned too seldom. Many a supervisor succeeds in getting things done because he prepares the ground carefully beforehand and secures the hearty cooperation of his co-workers. Three years ago at the Detroit meeting of the Department of Superintendence, Mr. Samuel S. Marquis in speaking of the success of the Ford School said: "Will plus scientific efficiency methods, will do great things; but 'good-will' plus ordinary 'intelligence,' will do a lot more." This sentence is worth more than a thousand platitudes.

In the second place, progress in supervision is determined by the methods employed in supervising. Personal contact with the teachers is highly important. Kipling's subaltern in the "Brushwood Boy" gave this advice: "Get to know your men, young 'un, and they'll follow you anywhere. That's all you want—know your men." Important as it is to get teachers to follow the leadership of a supervisor, it is equally important to discover unusual abilities in teachers and to capitalize these abilities in school administration.

The successful supervisor abhors uniformity, but recognizes the importance of unity. He no longer boasts of a course of study for the average child that never existed nor of a time schedule that will fit all the schools. He recognizes individual differences in teachers and pupils and arranges his courses and schedules accordingly.

In the third place, the means employed is important in making supervision most effective. There must be a constant and conscious effort to build up the teaching force. In doing this, leaders will be developed that will prove of invaluable service in raising the standard of all teachers.

There must be an unflinching devotion to children. When perplexing questions of policy are involved, the interests of the children must be protected, and the successful supervisor must not compromise these interests.

This leads us to the third part of our discussion—how progress in supervision is made possible. The application of Dr. McMurry's standards to classroom instruction was a startling but important step forward. No wide-awake supervisor can afford to neglect these standards when evaluating classroom instruction.

But, if he applies these standards in judging the work of the teacher, he must apply them in conference with teachers. It is just as important for the supervisor to observe the accepted standards—motive, weighing of values, organization, and initiative when supervising teachers, as it is for the teacher to use these guides when teaching her pupils.

The attitude toward these standards will determine largely the types of teachers' meetings. The contrast between two recent meetings made a vivid impression upon my mind. The one meeting dealt with subjects such as these: "Interest and Attention," "How to Secure Good Discipline," "Drill in Home Geography." The program of the other meeting consisted of: "What and How to Teach Geography," "Demonstration of How to Teach Grammar School Reading," "Demonstration in Primary Reading." Both were all-day meetings; but only the latter program provided for a social recreation period. The teachers brought a box lunch, and a group of 75 had a happy social hour together.

Certainly no supervisor can afford to neglect the use of standard measurements. He should be familiar with the terms used and be able to interpret results. Only the purposeful use of standard measurements will assist in the progress in supervision.

Since the application of standard measurements largely affects the teachers only, it is well for a supervisor to subject himself occasionally to self-examination. The various surveys and studies should furnish enough standards by the aid of which any supervisor can evaluate his own efficiency.

A supervisor's success is largely determined by the degree with which he capitalizes the forces at his command. The war has shown us the results of community effort. No supervisor should, therefore, permit the period of readjustment to pass by without making a serious effort to carry over these forces of cooperation. Community or county conferences are valuable agencies for improvement along all lines. Democracy has made many promises and must satisfy those whom it governs. The school should lose no opportunity, therefore, to enlist the people in planning for and assisting in this readjustment.

We have traced the progress made in supervision, we have discussed how progress in supervision is determined and how it is made possible. It remains for us to state briefly what further steps in supervision should be taken.

First, the supervisor should be relieved of clerical duties. His energies should be directed to those activities that require special expertness and for which he was specifically trained.

Secondly, there should be less inspection and more supervision. It is easier but manifestly unfair to detect poor teaching and make no systematic and determined effort to improve it. It should be a supervisor's constant aim to make a poor teacher a good one, a good teacher a better

(*Concluded on Page 97*)

HEALTH WORK IN THE SMALL CITY

W. R. Rutherford, Superintendent of Schools, Eugene, Ore.

I have sometimes felt that the administration of a small school system resolves itself largely into a constant effort to secure for our boys and girls all of the many advantages provided by our most progressive large cities, without exceeding the rather limited means usually available for our work. Much ingenuity has been shown by our smaller cities in adapting to their needs and means the work done in the best organized departments of larger cities, and often their ability in adaptation, combined with the greater opportunity of the small cities to keep the human element in their machinery and the personal relation in their services, has enabled them to secure results which compare very favorably with those attained at much greater expense in the best large city systems. In this respect the organization of health work presents one of the most difficult administrative problems found in the small city. The well organized departments of child hygiene in some of our larger cities have pointed the way in this work, but the many specialists employed in these departments are not within the means of the smaller city, while the many diverse features of the services rendered by these specialists made it next to impossible to so combine and simplify the work as to bring it within the means of the small city.

The following article will describe an attempt we are making in our little city with a population of about ten thousand to provide a fairly complete health program which will be within our rather limited means. In working it out we made a study of some of the best child hygiene departments of larger cities, and we also investigated the health work being done in many cities of about our own size, receiving data from schools in 47 of the 48 states. The details of this study will not be included here, but have been given in a bulletin just issued by the University of Oregon and may be secured by writing to the Extension Department of that institution. This article is not written because the writer poses as a specialist in this field, but in the hope that others confronted with the same difficulty may receive some benefit from a great deal of arduous work upon a problem concerning which there seems to be very little material which applies to the small city.

Returns from small cities over the country substantiate the statements of Cubberley and other writers on school administration, that health work is one of the newer developments in educational administration, and that the pathological side of this work is usually the first to be developed. In most of these cities the health work is of very recent growth. In many of them it is far from adequate, but a most hopeful indication is that practically every superintendent heard from realizes the importance of the problem and is making efforts to meet it.

Fundamental Aims.

In making our health program, the first aim kept constantly in view has been to emphasize the constructive rather than the pathological phases of the work. Of course, disease, as well as remediable defects, must always be reckoned with, but no adequate plan for health work should ever end with their consideration, nor should they be the basis upon which a health program is built. The ultimate aims of such a program should be constructive rather than corrective. Its basis should be the normal child and the building of health. With this end in view, we have laid particular stress upon the physical development of children, the building of health habits, and the avoidance of conditions which may lead to defectiveness or to disease. We endeavor to affect the daily habits of the great mass of normal children, to provide and encourage proper and sufficient exercise, and to arouse a keen interest in physical development. The experience of one year has convinced us that the foregoing objects are attainable to such a degree as to have a profound influence upon the habits and the development of our boys and girls.

The second fundamental aim of our plan has been to so coordinate all phases of the health work that it shall not consist of scattered and unrelated efforts, but shall form a centralized and continuous plan in which every agency which deals in any way with the health of pupils shall be closely coordinated, and every phase of the work, as well as every individual case, shall be carried thru until results have been secured. Even in the elaborate health departments in many of our larger cities there seems to be little connection between the different agencies which enter into the work.

In the small cities studied, there is seldom any adequate provision for securing a close correlation of the various efforts made to promote the health of pupils. The medical examination, the dental clinic, the regular inspection, the physical training, and other specialized services employed are performed by different persons often working on a part-time basis and having little connection with each other, while the health lessons and daily observation of pupils' condition are left to the regular teacher, with little attempt to direct her efforts or to relate them to other work having exactly the same general purpose. It seems to us that the surest way in which to secure proper coordination of health activities is to employ some one person who shall be responsible for everything which concerns the pupils' health, who shall direct every phase of the work, see that every effort is directed toward the same end, and make sure that individual cases shall be followed up.

As general director of all our health activities, we selected a well trained graduate of a broad course in physical education, believing this to be the best preparation for a health director available to the small city. A strong physician with special training or experience might be more thoroly prepared to direct the work, but the full-time services of such a man can seldom be afforded by the small city, and part-time service is not adequate for the responsibility and work required. The trained nurse, while excellent for the pathological side of the work, will seldom be equipped to direct all of the health service, including the physical training and the teaching of hygiene.

The Regular Teacher.

Few of the health programs in either the large or small city seem to provide very thoroly or definitely for the participation of the regular classroom teacher. This is a serious defect, for without her interest, her vigilance and her intelligence in matters concerning the health of her pupils, no plan can operate closely enough to children to be effective. A thoro plan should include definite means of increasing the teacher's knowledge of the problem, securing her intelligent cooperation, and placing definite responsibilities upon her. Part of this may be accomplished thru clear and complete directions for her part in the health work and thru bulletins or meetings, but her greatest source of help will be her frequent contact and consultation with someone who is enthusiastic, well informed and thoroly conscious of the supreme importance of the school's responsibility in this matter. This is one of the most important phases of the Health Director's work. She should miss no opportunity to arouse the teacher's interest, to encourage her constant attention to her pupils' physical condition, to consult with her as to individual pupils, to inform her of the results of any diagnoses made upon them, and to make her, if possible, an intelligent and enthusiastic factor in the health program. Unwillingness or inability of the teacher to meet this part of her responsibility should be considered a very serious discount upon her value in the teaching corps. We have found teachers to be almost invariably interested in the physical welfare of their pupils when brought to understand its extreme importance.

Health Lessons.

If a health program is to be truly constructive, one of its most important parts must be the hygiene or health lessons taught by the regular teacher. In order that these lessons shall be vital and shall function as a coordinated part of our health program, the entire control of this work has been given to our health director. For the normal child, this should be the most valuable part of the whole health plan, and yet in actual practice it is usually the most sterile, for there seems to be a consensus of opinion that hygiene is the most neglected and most poorly taught subject in the whole curriculum. The most serious defects in this work is that knowledge and not actual achievement is usually made its basis. While most schools have quit memorizing the names of bones and are emphasizing hygiene, it is still largely taken for granted that a mere knowledge of the rules of health, with their underlying reasons, is sufficient to insure the formation and practice of healthful habits.

True health habits are not based upon knowing but upon doing. No amount of knowledge is apt to seriously affect the actual practice of a class of children unless careful provision is made to encourage, stimulate and check up on their performance day after day until their habits are fairly well fixed. Pupils' grades in hygiene are almost universally based upon the mere acquisition of facts about health. The boy who has never made the acquaintance of a tooth brush is given a perfect grade for being able to memorize the facts presented upon this subject, while another whose care of his teeth is perfect gets no grade if unable to perform this valuable intellectual feat. Grades in this subject should be based largely upon actual achievements in the formation of health habits. Home cards may be furnished and sent to the mother with a note inviting her to help in grading the child, if she cares to do so, by checking him upon certain things which go to make up the grade. The work now being done by many schools under the Junior Red Cross offers an excellent opportunity for beginning a check upon pupils' health habits as a part of a nation wide movement without assuming local responsibility for its initiation. We found it more effective to begin fewer habits at a time than those in the Junior Red Cross plan, and met with very little lack of cooperation when we began to use this as a purely local plan.

In teaching health lessons, the school must either content itself with a program much less comprehensive, with results less uniform, and a control much less complete than that attained in other phases of its work, or it must bring to this subject an enthusiasm, an influence and a

thoroness which rise far above that of ordinary teaching. So small a portion of the pupils' time is under our control and so many of the agencies that mean most to health and health habits are in the home, beyond our direct reach, that we cannot expect to secure results with the same effort and by the same means as in those subjects confined entirely to our teaching and controlled entirely by the school.

It takes skill for a teacher to make her presence and her voice direct and to stimulate a class in arithmetic or geography, to make conditions such that community of interest, competition and other social agencies may have full force, to stimulate or repress at just the right time, and to attain the definite results at which she aims. It is quite another matter, however, to secure results with a toothbrush hours away from the sound of her voice and far removed from the inspiration of her classroom, in a home, perhaps, where the atmosphere and conveniences are anything but favorable, with years of habit and the carelessness of childhood to resist her teaching. To secure results under these inauspicious circumstances will take not only skill but rare resourcefulness and tact and influence. With all its difficulties, the task is possible, and I believe the true teacher will attempt it all the more eagerly, not only because of its tremendous importance to the child, but because of its very difficulty. However, she must expect to use other methods than those employed to secure results in other classroom subjects.

One of the very first requisites, if we shall do effective work in this subject, is to eliminate those excuses so often used for failing to do real health work and contenting ourselves with purposeless and unproductive teaching which does not present special difficulties. To be sure, we find the subject more personal, more difficult of approach than other subjects that we teach. To be sure, many of our children come from careful homes which might consider impertinent the lessons most necessary to other children of the class. It is true that we cannot always secure the best results where the home atmosphere is most unfavorable, nor can we be sure that habits, even well begun, will be continued; but these and the many other objections are not valid reasons for failing to attempt a service to the child which may mean more to him than all else that we may do. They are only the natural difficulties of this particular subject, to be met as other difficulties are, with skill, resourcefulness and tact.

Physical Training.

Any complete health program must make provision for regular and systematic exercise and development thru some form of physical training. Many of the small cities studied while we were working out our plan are providing some systematic physical training for their elementary pupils. In many of them, required or elective courses are prescribed for high school girls. A very few are even attempting to replace interscholastic athletics by physical training for all their high school boys, a subject which is as Mark Twain said of the weather: "Something which many people discuss, but few attempt to do anything about it." The most serious defect in all this work seems to be that in most places it does not seem to be considered as an integral part of the general health plan. It is too much concerned with objects of its own and no attempt is made to correlate it closely with the other agencies in child hygiene.

The best courses in physical training do not seem to make extreme use of formal calisthenics, nor do they substitute games and plays for all formal exercises. The formal exercises used, however, have a definite object, such as good posture, proper breathing, the correction of common defects, or overcoming schoolroom conditions. They are not made an object in themselves, are not developed for exhibition purposes, and no pretense is made that they can provide the genuinely wholesome exercise, the relaxation, initiative and socializing influences found in real play, which must always form the larger part of any good course in physical training.

The playground should be made to serve its true purpose. Even in the six and eight-room buildings often found in the small city, it is usually possible to have one or more teachers capable of taking the lead in directing the playground activities, with help in organization from the health director or physical training teacher. The increased attention given to playground supervision in normal schools and colleges make it possible to secure teachers capable of directing this work, and teachers already in service can often be encouraged by a small increase in salary to take summer courses which will equip them for this purpose.

A number of books, as well as some of the best manuals printed by state and city departments, give excellent courses in physical training complete with directions, exercises, games and folk dances. Whatever the course used, it should never be dominated by temporary or extraneous purposes, but should be a thoroly coordinated part of the general health plan, closely correlated with every other part of it, and having as its prime objective the building of health and the prevention of defectiveness.

Contagious Disease.

Even a small city is seldom free from scattering cases of contagious disease, and the utmost vigilance is necessary to prevent their spread. The close contact necessary in school of children from every type of home, the careless attitude toward these "trivial childish ailments," and the selfishness of individuals, ready to freely expose others rather than suffer any temporary inconvenience, make it difficult to keep the schools free from contagious disease. The extreme contagiousness of most of these diseases, the uncertainty of diagnoses in their early stages, and the varying opinion of medical authorities are elements of danger and uncertainty which add greatly to the difficulty of preventing epidemics.

Every pupil should be inspected at the beginning of each school day by the regular teacher. Whether this is the regular few minutes of formal inspection in which each pupil comes to the teacher for quick examination, or whether the teacher simply passes about the classroom as pupils work, noting closely the appearance of each, there should be, at some time very close to the opening of the school day, a few minutes in which the attention of every teacher is given entirely to this indispensable part of her day's work. Colds, skin defects, evidences of temperature, and other conditions suggesting contagiousness should be immediately investigated and referred to the principal when it seems advisable. In every building the principal or some teacher should be able to take temperatures with reasonable accuracy. Pupils having more than one degree above a normal temperature or showing evidence of infectious trouble should be isolated or excused until examined by the health director, nurse or school physician. Pupils showing signs of a severe cold should be excluded, for heavy colds are a serious menace to the classroom, not only because of their contagious nature, but because so many of the contagious diseases can hardly be distinguished from a cold in their beginning stages. Teachers afflicted with heavy colds should also be excluded, and a substitute supplied for at least two or three days at the expense of the district. The conscientious teacher thus excluded will usually return in a day or two in good condition, while otherwise she may work for weeks, with a cold which is a menace to her pupils, and with her efficiency much impaired.

In addition to the close observation of pupils in school, we have required during the past year a very close check upon the cause of all absences, for if we are to protect our classrooms we must know the condition of pupils who drop out and return. Twice a week in normal times and every day during most of the past year our teachers have reported at the opening of school all absentees with the cause of absence, when this can be ascertained. If the cause of absence can not be determined, the home is visited by the health director, and if the matter seems serious the school physician is asked to investigate. This plan proved invaluable during the past year, to the school as well as to the officers responsible for quarantines.

One of the most serious handicaps in the average small city is in the inadequate service rendered by health officers who have the only authority to enforce precautions against spreading contagion. Such officers are usually poorly paid, give little time to the work, and are not often available for much help in connection with the schools. Even if the school district employes a nurse or school physician and guards closely the spread of disease inside the schools, epidemics will occur unless close cooperation and prompt action can be secured from the officer having authority to enforce a quarantine or control other agencies for the spread of disease. We have worked out a plan of cooperation with our municipal authorities thru which the same physician is agreed upon to perform the work of city health officer and of school physician, his school services to be entirely in our control. In this way a competent physician is appointed, enough can be paid to secure more of his attention for the work, and the combined services give him a much closer touch with general health conditions. Under this plan the school is better guarded against pupils unfit to enter, and those cases detected in the school can be more promptly quarantined than they usually are. One of the special problems is the family which does not call a doctor. The case thus escapes report to the city health officer, and quarantine is omitted or established too late to prevent trouble. Many of these cases come to the attention of the schools, and with a joint health officer with authority to investigate them, they are usually promptly diagnosed and quarantined.

Health Records and Elimination of Physical Defects.

One of the essential parts of an adequate health plan is a complete and permanent health record of every child. This should include the results of physical measurements and of a thoro medical examination by a physician, with additional information concerning the health history of the pupil. A good many of the small cities studied have begun such records, some of them very complete. Some of the examinations have been made by the school physician and others thru the voluntary services of public-spirited physicians. Our own were begun two years ago by eight of our local physicians who gave every child a thoro medical examination.

Once each year every pupil should have a thoro examination covering the points suggested by Terman or some other good authority on school inspection. The results of this examination should be fully entered on the child's permanent health record and the parent should be informed of anything needing attention. Part

of this examination such as testing sight and hearing may be done by the health director or the nurse, and only the suspected cases referred to a physician, but the test of heart, lungs, nose, throat, etc., should be made at least once during the year by a competent physician. If possible, a thoro dental inspection should be made. If this is not possible, at least those having badly decayed teeth should be noted and parent's attention called to the need of treatment.

The physical measurements may be made by the health director or physical training teacher and should include at least the height, weight and lung capacity, with any additional measurements or strength tests that will be of actual value. They should be recorded at least once each year, but may be taken oftener and made of much value by keeping children interested in their development and using this as a motive for health habits and physical exercise. Boys are particularly interested in their growth and increase in lung capacity.

This will often make a more effective appeal to them than any amount of moralizing or general talk upon the value of health. Such plans as the Athletic Badge test can also be made very effective in promoting interest in physical development. We wish next year to have scales and stadiometers in each school, and to include each pupil's weight and height upon his report card each time that it is sent home in order to keep both children and parents interested in these important indications of health and physical development.

Thruout the school year pupils should be observed for signs of remediable defects, and the regular teachers should be encouraged and helped to recognize the common symptoms in such cases. We find that some of our teachers detect such defects as adenoids, diseased tonsils, malnutrition, defective sight or hearing almost as quickly as does the average school nurse.

At least once a week each classroom should be carefully looked over by the health director or school nurse, who should look for contagious trouble and remediable defects, observe the general physical condition of all children, and give particular attention to those referred to her by the regular teacher. As often during the term as the time given to the work by the school physician will permit, he should visit each school and inspect the pupils. His visits should approximate a regular schedule just as closely as his other practice will permit, and as far as possible the health director should accompany him upon these visits, in order that she may call to his attention cases needing diagnosis, and get at first hand the additional information brought out by his examination, see that it is included in the child's health record, and follow it with parents and teachers to secure its correction, if possible. By securing the consent of parents, our health director takes many cases to the school physician's office in order to save his time and to have better facilities for examination, but in general she is present for the diagnosis in order that she may constantly increase her ability to recognize prevalent causes of trouble and that she may better understand and follow up the cases needing attention.

The permanent record of the medical examinations mentioned above should be complete and definite. Many good blanks for the purpose have been received from different cities, but in most cases they make no provision for recording the remedial results accomplished by the school or by the family physician. Whenever these records are permitted to become a mass of dead material filed away from one examination to another, their value is extremely small, but if they can be kept a live record showing at all times the present status of the pupil's physical condition and used as a guide for all who are concerned with his health, they may be made almost invaluable. Any remediable defects which have not received attention is one of the important working objectives of the health department. The first thoro medical examination in any city will reveal a mass of defects that present a formidable looking problem. However, the first notice to many parents will bring prompt attention, and a tactful yet insistent follow-up program for the others will reduce the number to where each may be given a good deal of attention.

An excellent form for the first notice to parents, used by several of the cities studied, is a card making the very conservative statement that an examination of the pupil "seems to indicate" certain defects and advising them to take the child to their family physician for thoro examination. On the reverse side of this card is a blank to be filled out by the family physician, giving the result of his examination and the remedial treatment given. This card is returned to the school, and the additional findings, treatment or operation recorded on it should be entered upon the pupil's permanent health record.

The first notification will be sufficient for a large percentage of parents, who will take the necessary measures for the correction of defects and greatly reduce the number of cases needing attention. Parents not responding to the first notice in a reasonable length of time should receive a second notice, reminding them of the importance of early attention to the defect, or they should be called upon by the nurse or health director. Every effort should be made to secure the treatment of every case needing attention and some arrangement should be made to help those parents unable to provide treatment for their children. Our school physician treats some of these pupils and a number of our ablest physicians have volunteered their help for such cases. A number of the letters from superintendents in small cities mention such help by public-spirited medical men of their communities. We have not yet been able to establish a dental clinic, but our dentists are treating free a number of our worst cases at their own offices.

Results.

We feel that among our greatest gains under this plan have been the vital nature of health lessons taught by our teachers and the increased interest and intelligence of teachers in dealing with health matters. The health habits of pupils, as well as their appearance, has shown marked improvement, and while the unusual conditions during this year of epidemics has made it impossible to secure sufficient help from nurses or physicians at critical times, the alertness of our regular teachers under the inspection and guidance of our health director has enabled us to meet our problems well. The unification of control and the close coordination of all the health work done have begun to show results and we believe that with some additional help we can develop a health program which, with the close cooperation and personal touch possible in the small city, will give our boys and girls practically all of the help furnished by the highly specialized health departments of larger cities at an expenditure which will be within our means.

Citizen Co-operation in Educational Research

F. E. Shapleigh, Buffalo, N. Y.

The citizen of yesterday knew little and cared less about the public schools and their activities, so long as his child was promoted regularly and was not unduly punished for infraction of school discipline. But the citizen of today is awakening to his responsibilities in relation to the development of the intellectual powers of his child.

May we summarize briefly the place of the citizen in our school system:

Citizen interest determines the form of administration under which our schools are managed. For instance, it determined that the schools of New York City shall be governed by a small rather than by a large board. It determined that the schools of St. Paul shall be governed by a commissioner instead of a school board. It determined that the schools of Buffalo shall be managed by a board of education with power to act thru its own executive, instead of a control vested in a school committee of the aldermanic board and a superintendent elected at the polls. Directly and indirectly thru the ballot the citizen wields a mighty power for good or for evil, over our school systems.

Citizen interest determines the type of men and women at the head of our school system. Public opinion, the will of the people, finds its expression in our boards of education, determining whether they be honest, faithful, intelligent, or dishonest, unprincipled and lacking in ability. It finds expression also in the type of superintendent, determining whether he be a real intellectual leader or a tool of the political interests. It determines in the final analysis whether appointments shall be for merit or for social or political considerations.

Citizen interest also determines the amount of money available for schools, thus controlling the character of buildings and grounds, the extent and usefulness of equipment. It fixes teachers' salaries—by which it sets to a large degree the standards of teaching and supervision.

Citizen interest has made possible the realization of many ideals of our schoolmen. The history of education is the history of one step after another attained thru the assistance of citizens. Thus, thru private initiative and private funds sufficient to demonstrate the value of the work, public support has been gained for the kindergarten, evening schools, vocational education, vacation schools, lunches, school gardens, and special schools and classes for the defective and delinquent.

In view of these facts, we must agree that the citizen has an important place in our educational scheme, with vast power for good or ill.

With this introduction as a setting, may we now turn to one city, that we may see in concrete fashion the workings of a practical, sane plan of citizen cooperation with the public schools.

The city of Buffalo, which now has a population of approximately half a million, has had since its beginning the usual amount of citizen cooperation, organized as occasion demanded for

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specific purposes, such as the securing of kindergartens and school lunches.

In 1914 a situation arose which called again for citizen action. A commission charter, about to be enacted, proposed a school system with authority and responsibility divided among four heads—the school board, the superintendent, the city council and one of the city commissioners.

The educational committee of the Twentieth Century Club, realizing the danger to the schools, called together a group, from which grew an organization of citizens known as the Public School League, the immediate object of which was to secure legislation creating a board of education with power to manage its own affairs and to select its own executive.

The plan and program of this newly created citizen organization was as follows:

1. To cooperate with local and state school authorities in promoting the highest efficiency of the public schools.

2. To become a fact-gathering and fact-giving center of important phases of school life.

3. To develop and organize intelligent and active interest among citizens in public education.

In all of its varied activities, the organization has consistently followed its original motto, which may be stated as:

"Research is the basis of intelligent action," and upon the confidence thus commanded, *has* functioned and is *today* functioning as a bureau of educational research, not only for its own members, but also for civic organizations, teachers, principals, supervisors, superintendent and school board.

The first task of this citizen organization was to develop a larger public interest in behalf of the schools, and to build up sentiment in favor of a more efficient plan for administering school affairs. To do this, facts were gathered and comparative charts were made, outlining in concise form the salient factors in public school administration in 47 of the largest commission governed and non-commission governed cities.

Then the issue of "home rule" for cities arose, and it became necessary to make an extended study of the relation of the state to the city school system, a study published and used by the constitutional convention of the state of New York.

With the enactment of the commission charter, a school board was created—a board inexperienced in school affairs, without local precedents, and with the task of reorganizing much of the school machinery to meet the requirements of the new law.

The board of education then turned to the citizen organization, now known as the Public Education Association, for assistance, that it might learn of school procedure and practice in other cities.

During the following three years the board of education and its staff, to meet specific problems as they arose, called for many reports dealing with school methods elsewhere, of which the following titles are suggestive:

1. "Diagrams showing central administration in the school systems of ten large cities."

2. "Organization and functions of a city board of education." (117 p.) With introduction by the Corporation Counsel of the city of Buffalo.

3. "Compensation of school janitors, engineers and helpers in 19 large cities."

4. "Salary schedules (in detail) of 22 large school systems." (170 p.)

5. "Special facilities for the training of women for citizenship at the time of enfranchisement."

6. "Administration and supervision of physical training in city school systems."

The board of education and its executive staff has also called upon the association to cooperate in making certain studies within the school system itself. Among the more significant of these are the following:

1. "A study of the ages and progress of children in the public schools of Buffalo." (143 p.) The first age grade study ever undertaken by the city, this study enabled the school authorities to secure definite information on conditions regarding which only surmises had hitherto been available.

Of the 43,000 children included in the tabulations 41.5 per cent were over-age, and 44.8 per cent were retarded one or more half years; 15 per cent of all the pupils were retarded one-half year; 15 per cent more were retarded two half years; 700 were five half years behind their proper grade and 600 more were retarded six half years.

It was found that, computed in dollars, the loss to the taxpayers, due to retardation, was enormous, the total cumulative extra cost of the retarded pupils then in the public schools and included in the tabulation (pupils in special classes and vocational school omitted) amounting to $823,769, on the basis of salaries and maintenance alone. On the other hand, the savings due to rapid progress amounted to $130,356, leaving a net loss to the city of nearly $700,000.

2. "Measuring penmanship in the eighth grade of the Buffalo schools."

This study was a compilation and analysis of the first standard test ever given on an extensive scale in the public schools of Buffalo. The comparative data thus obtained was used by the director of penmanship in securing renewed interest and more efficient methods among her teachers.

3. "Director of industrial courses in the public schools of Buffalo."

Altho merely a careful compilation and analysis of the 145 industrial courses given in the schools, this report, distributed to all of the employment managers, social welfare agencies and vocational teachers of the city, has proved of real value in directing boys and girls, men

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NEW GIRLS' HIGH SCHOOL, BROCKTON, MASS.
Frank Irving Cooper, Architect, Boston.

This building was completed late in the year 1918 and is planned to accommodate a metropolitan high school for girls. The plan is in the shape of a huge letter T, with the stem to the rear of the lot. The academic classes are accommodated in 31 classrooms of standard size and seven rooms of one-half size. The commercial department is grouped to occupy the entire front of the second floor. The art department and the sewing department share the rear of the third floor.

Nearly all of the basement is taken up by a gymnasium, with its accessory rooms. The latter include apparatus, shower and locker rooms and three rooms for the medical inspector.

In addition to stairways an elevator has been provided.

The building is built of pressed brick with limestone trimmings. The heating and ventilation are by means of hot water. The air is washed and is forced thru ducts by means of electrically driven fans.

The building, as completed, cost slightly in excess of $400,000.

INVESTIGATION FOR A SYSTEM OF APPRAISAL OF SCHOOL PROPERTIES

R. H. Thomas, Clerk and Business Manager, Portland, Oregon

In 1916 I initiated an investigation for the purpose of establishing an equitable and logical system of appraisal of school properties for Portland, Ore. The preliminary study of the problem, with its theories and conclusions, is here given upon request of the SCHOOL BOARD JOURNAL. As there was no intention of ever publishing the study, quotations were never placed about the language of the authorities consulted. Compilation of data, rather than originality of ideas was the controlling thought. For the reason that in all municipal construction, it is customary to obtain funds for the replacement of old buildings, purchase of grounds, etc., by making a levy either directly or indirectly to cover the total expense, it has seemed unnecessary in the eyes of most public officials, to carry on its books any accounts showing the actual worth of their properties at any time, as is done by commercial corporations. This condition results in a very distorted array of valuations in the column of assets, and gives rise to criticism, more or less just, on the part of businessmen, charging inadequate business methods in municipal accounts. While it is true that in a non-income producing corporation, such as municipal corporations, where funds are obtained as outlined above, an exact system of appraisal is not so vital as in a commercial corporation; nevertheless, it is highly desirable that a reasonably close estimate of assets be maintained from year to year.

The Investigation.

For the purpose of investigating the subject of appraisal, the properties of the school district may properly be divided into three natural subdivisions, viz: Buildings, Grounds, and Contents. These subdivisions are logical because of their inherent differences, and for the reason that a different series of factors are active in each case, to place their status in an appraisal.

In order to obtain a basis from which to start the study, material in the technical department of the public library, on the general subject of evaluation, was investigated for the purpose of segregating those portions pertinent to the subject in hand. While the range of material available on the subject of evaluation is large, the problem discussed is largely that of evaluating public utilities. Little information could be gained regarding the individual subject of buildings.

In order to ascertain the views of men familiar with the general problem of appraisal, and also familiar with local conditions, several men engaged in this class of work, recognized as authorities, were interviewed. These men were architects, assessors, appraisors, inspectors, managers of large private estates, mortgage loan operators, insurance agents, realty dealers, contractors, and others who have had practical experience along these lines.

Letters were written to 48 cities in this country, requesting information regarding their methods of determining their assets. Replies were received from 22 of these cities, and a summary of their answers is tabulated below:

Summary of Systems of Appraisal in 22 Cities of the United States.

System of Appraisal.	Number of cities employing same
Buildings:	
a. Appraised by regular assessors	4
b. Appraised at original cost plus improvements	9
c. Appraised at cost of replacement	1
d. Appraised by agents of the school board, or experts, periodically	5
Grounds:	
e. Appraised at cost	3
f. Appraised at market value (judged by agents of the school board)	6
g. Appraised at cost plus improvements	3
h. Appraised by assessors	6
Contents:	
i. Appraised by evaluating inventory at market value	7
j. Appraised at cost	5
k. Appraised at cost minus estimated	3

Theories.

From the above summary it is seen that there are several viewpoints from which the valuation of a building may be judged. A brief discussion of the advantages and disadvantages of different viewpoints may be instructive:

I. Valuation at original cost, plus cost of betterments.

Advantages:
1. Shows actual cost to the community, of each building.
2. Figures are easily obtained.
3. If same system is applied to grounds, appreciation of grounds tends to offset depreciation of buildings.

Disadvantages:
1. Values thus stated, indicate nothing as to the present value of the property to the community.
2. Indicates nothing as to the present state of the building.
3. Valuation of the total system becomes excessively high.
4. It does not give values comparative with those of any other business.

II. Valuation at cost of replacement.

Advantages:
1. Shows actual cost to the community, of building the present system under the present conditions of price for labor and material.

Disadvantages:
1. Shows nothing as to the present value of the property.
2. Valuation is too high.
3. Figures are difficult to obtain, and require considerable labor in collection.
4. Values so stated are not comparative with those stated in any commercial valuation of a business.

III. Valuation on the basis of first cost plus cost of betterments, minus depreciation:

Advantages:
1. Figures are easily obtained.
2. It gives a value reasonably comparative with that of any commercial enterprise.
3. By using varying depreciation factors, the condition of the building may be taken into consideration.
4. It may or may not show the present worth of the building to the community. This depends on—
   (a) Whether or not there has been a general rise in prices; and
   (b) Local conditions at the time of building, which may have caused a distorted first cost.

Disadvantages:
1. Depreciation is an uncertain factor, and gross assumptions must be made.
2. Occasions will arise where a building having passed its contemplated life, will still be useful for another purpose, and will evidently be worth more than junk value.

IV. Valuation on the basis of cost of reproduction, minus depreciation.

Advantages:
1. Shows the present worth of building to the community, according to modern practice in appraisal.
2. Gives values comparable with those of any commercial enterprise.
3. Places all buildings on an equitable basis, so that reasonable comparisons are possible in all cases.
4. Eliminates local variations that may have affected first cost, and reduces the effect of varying money values.

Disadvantages:
1 and 2. (Same as Nos. 1 and 2 in item III.)
3. Considerable labor is involved in inaugurating the system and in working up logical depreciation tables.

V. Evaluation by assessors.

Note: Inasmuch as school property is non-assessable, this method is not available in the present instance, without special arrangement.

Advantages:
1. Valuation (in the present instance), would be made substantially as in the case of item IV.
2. Valuation would be made by non-interested parties.

Disadvantages:
1. Special arrangement would have to be made with the county assessor's office.
2. Assessor's agents would probably not be as thoroly familiar with the individual condition of each building as would the superintendent of properties of the school district.

Weighing carefully the pros and cons of the above viewpoints, that numbered IV would seem to be the most logical and best suited to the present instance. It is apparent that the valuation of municipal property, such as is a school building, should be viewed from the standpoint of its potential utility to the community, and not from its saleable value. Its measure of value to the community is its potential utility to the community. This valuation may be more clearly defined as that fibre which will express in dollars and cents, the cost of replacing the present system of school buildings in their existing state, under present day conditions of price of materials and labor.

It must be recognized, however, that except for the purpose of basing insurance, or in the very infrequent case of the disposal of a school building which has not yet served its full life, this valuation has little practical value to the school district, other than one of interest and possible help in planning extensions and alterations in the system. There is no need for considering the factor of plant valuation in the economical operation of the schools. The criterion of success is efficiency. Education is an enterprise wherein the fundamental idea is service to the community. Those served, pay for the cost of the required plant; and no question arises as to the financial returns upon the investment, fairness of taxes, or any of the other financial aspects, which must be carefully watched by commercial enterprises, in order to know the state of their business. However, if it be agreed that the advantages to be gained are sufficient to warrant the time and trouble necessary to arrive at this valuation, the viewpoint mentioned in the preceding paragraph would seem to be the most consistent. This conception is concurred in by most of the men interviewed.

Replacement Costs.

In order to arrive at this value to the community most closely, it seems most logical to follow the modern practice in appraisal; and to determine, first, the cost of replacement of the structure under conditions existing at the present time; and secondly, depreciation. Such a plan eliminates the factor of local condition that may have existed at the time the structure was built—causing a higher or lower price than normal; and also brings the building up to date in regard to the purchasing power of money. This latter factor is found to be of much importance when it is realized that the cost of building material in the United States has increased from 30 to 50 per cent in the last fifty years, and the price of labor has risen propor-

tionately. Due to this rapid change, it seems advisable that the cost of replacement should be revised periodically; say every five years.

The rigid method for obtaining replacement cost, would be to analyze the materials and labor required for each building individually, and determine the cost of duplicating each item under present conditions. This is a method employed by commercial concerns for rate making purposes, for close cost accounting, and for basing negotiations of exchange. This would be a costly operation to apply to the school system and one out of proportion to the benefits derived. A second method less exact in detail, but one which would give reasonably close results in a series of buildings of such uniformity as school buildings, is to determine the average cubic unit cost of each class of buildings, and apply these figures to the schools. It is the opinion of many competent builders that the cost of construction for the five years immediately preceding the recent world war should give a reasonable basis for such a unit cost. A third method frequently used, very similar to the above, is to determine the unit cost on the square foot basis of floor area, and apply this to all buildings. With usual data at hand, the application of either of these last two methods, should be a simple matter.

Appraisals.

One of the most elusive problems in the development of modern appraisal, is the evaluation of buildings. Physical depreciation is not capable of scientific ascertainment, even after it has happened; much less can it be accurately forecast. It occurs in the most unexpected portions of the building—sometimes in one place and sometimes in another. Add to this the problem of providing a building that will produce profitable returns on the investment thruout its life, under the uncertain elements of city growth and change of modern taste and needs, and it becomes largely an indeterminate problem.

It is contended by some investigators, that the appraisal should be based on the efficiency of the plant; that so long as the service is adequate, the value should be taken at the original cost, or the cost of replacement. This method would practically coincide with what is later described as depreciation due to obsolescence. That is, if the average rate of depreciation due to obsolescence, is less than that due to physical depreciation thruout the life of the structure, there would be a lessening efficiency due to obsolescence (very difficult to rate), which would suddenly break off to zero when the building was condemned. Such a method would thus fail to represent the true utility to the community, which might be loosely defined as the capitalized potential life of the building. On the other hand, if obsolescence is the controlling factor in depreciation, such a method might be theoretically satisfactory from the point of view of usefulness or efficiency at any time; but it lacks in any case, the important idea of potential utility. It further lacks the recommendation of any large number of appraisors. The amount of depreciation to be allowed, would be a matter purely of judgment without any definite standard for measurement.

Depreciation.

The problem of depreciation in buildings, is one of the most uncertain and indeterminate in the subject of valuation—so many factors tending to depreciate the value of the building, having varying degrees of effectiveness in different localities and under different artificial conditions, are active, that to deduce any general principles, must be recognized as a task dealing grossly in averages. Very little data on the subject of depreciation in buildings, is available. Considerable study has been put on the subject of evaluation of public utilities; but the phase of buildings seems to be a minor factor in these investigations.

There are recognized two general kinds of depreciation.

First: Physical depreciation, which may be defined as the deterioration due to wear and tear on the materials of construction. A large part of this may be taken care of by constant repairs and replacements, but in spite of this, there is still an accumulative deterioration, which, sooner or later will cause the building to be discarded. In a technically restricted sense, then, physical depreciation is the residual deterioration over and above that possible of elimination by normal repairs and replacements, which will cause the building to be discarded in some period of years. Where normal repairs and replacements are not kept up, there will be a physical depreciation due to what is termed "deferred maintenance."

Second: Functional or economic depreciation. This may be defined as a depreciation resulting from a number of economic factors which may tend to throw the building into the discard before its physical life is utilized. These factors are:

1. Obsolescence.

Due to development of the art demanding new type of housing, or changed apparatus, change of building codes, fashion and change of habit, shifting centers of population, alteration of lines of traffic, competition, and development of new districts catering to some particular utility.

2. Inadequacy.

The very multiplicity, as well as the incommensurate character of the factors contributing to functional depreciation, make plain the impossibility of predicting on this phase of the subject. Ordinarily a single utility building is the more apt to be affected by this type of depreciation. The school is typical of the single utility building, but the simplicity of its utility tends to counteract the general rule.

A study of the buildings that have gone into the discard, or have become unprofitable, will reveal the fact that a large proportion may be charged to this second kind of depreciation. This is particularly true of office buildings the country over constructed to fit the existing conditions and demands. The rapid change in fashions, the shifting of business centers, etc., has caused large numbers of them to become unprofitable investments. As applied to school buildings, a wide difference of opinion exists as to which type of depreciation will control. In the experience of this school district, but five schools have been discarded. These are enumerated below, with comments pertinent to the question in hand. It is seen that the prime argument for the discard of most of these buildings, is that they were obsolete; but it is also true that these same buildings were not in the best condition physically, and would require a considerable expense to repair for service.

School Buildings Discarded.

Type	Original Cost	Years used
Couch: 2-story wooden frame building	$38,000	33 yrs.
	12,562	25 yrs.
Reason for Discard: Building considered obsolete; was inadequate; in poor physical condition, a well to do community demanded a modern building.		
Josiah Failing: 2-story wooden frame building	$38,800	33 yrs.
	12,200	26 yrs.
Reason for Discard: Considered obsolete; physical condition poor, but could have been repaired at reasonable expense, to last for several years. Push club wanted a fireproof school.		
Lownsdale: 3-story brick building	$127,000	32 yrs.
Reason for Discard: Considered obsolete; physically in poor condition; inadequate for a rapidly growing high school population. It should be noted that this building was poorly constructed in the beginning.		
Shattuck: 2-story wooden frame building	$24,688	28 yrs.
	33,968	23 yrs.
Reason for Discard: Considered obsolete; in fair physical condition, and could have been repaired at reasonable expense, to last for several years. Popular clamor demanding a new type of building comparable with the new buildings in surrounding districts, was the chief cause for the discard of this building.		
Atkinson: 2-story wooden frame building	$29,716	48 yrs.
	32,766	10 yrs.
Reason for Discard: Shifting population due to encroaching industrial districts; building considered obsolete; physically in poor condition.		

It may interest the reader to know that the growth of Portland's school population, the congestion in its school buildings, and the lack of school building funds, has forced all these discards into usable shape. The Couch was renovated for a convalescent hospital for the Spanish Influenza this winter. That it was not used for this purpose was due solely to the fact that the health authorities stamped out the disease sooner than they themselves had dared to hope.

The Josiah Failing is occupied by the school for the sightless and in it also are located the district workshops and storerooms.

The Lownsdale is made over and every available corner used for a Girls' Polytechnic High School.

The old Shattuck houses the High School of Commerce, and the Atkinson is half full of elementary classes. It took some money to modernize these buildings, but they are found to be physically and usably worth it.

While there have been rapid strides in education during the past thirty or forty years, and corresponding demands for better and more adaptable buildings, it is nevertheless true that the basic idea of education is practically the same; and the school building problem is simply one of providing proper housing for the meeting of pupil and instructor. It would seem that any building properly designed for heat, light, and sanitation, and properly located, should be usable the period of its physical life. On the other hand, the discarded buildings already mentioned, show that the opposite has largely been true in Portland and it would be presumptuous to predict that the advance in education and in adaptable buildings would be any less rapid in the future than in the past. To be conservative, it would be better to predict an even more rapid advance.

Probable Useful Life.

It is thus seen that the inter-action of the two phases of depreciation is to be considered in the problem of school buildings. In the olden wooden types of buildings, the physical life does not greatly exceed the functional life. What the relation will be in the buildings of new fireproof construction, is impossible to predict. Such should easily last from 75 to 100 years, so far as physical depreciation is concerned. Functionally, they may be useful for the full period; but it would be more conservative to reduce the probable useful life, to a lesser figure—say fifty or sixty years. Because of the indetermination of the problem, it would seem logical to average the judgment of the various men interviewed, who are familiar with the general problem of depreciation. Their estimates for the various types of buildings range in years as follows:

	Physical Life				*Functional Life*			
			Averages				Averages	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Wood	30	42	37	38	25	30	27	....
Brick and Stone	30	100	57	61	27	50	34	....
Fireproof	50	400 and indefinitely	81	156	35	75	54	....

It is noted as a most striking fact that every authority consulted estimates the physical structure will outlive its usefulness by from 3 to 325 years.

A psychological factor frequently resulting in the discard of a building before its physical life is utilized, has been demonstrated in the experience of this district. Public opinion in the district, or the socalled booster spirit, may be so aroused in the cause of demanding a new and modern school comparable with new schools in surrounding districts, that their demands cannot be ignored. This is a phase that should not be overlooked in estimating the probable life of a school building.

Balanced Average Life.

One investigator of the subject (Bolton, in "Building for Profit"), had developed a scheme for estimating the physical life of buildings, which has been accepted by many reputable builders. A simple example of the method is as follows:

Assume 40% of the cost of the building to be of material lasting 70 years—100%

Assume 40% of the cost of the building to be of material lasting 40 years—57%

Assume 20% of the cost of the building to be of material lasting 25 years—35.7%

A balanced mean is then obtained by expressing the life of the component items in terms of the most durable part (see above percentages), and multiplying these by the percentage of the item in the building, thus:

.40 x 100 = 40.0
.40 x 57 = 22.8
.20 x 35.7 = 7.1

69.9

Then the balanced average life of the structure is 69.9% of 70 years, or 48.9 years.

While an exact analysis of the physical life of a building is impossible, the above method would seem to be reasonable, in that it assumes that where the larger percentage of the building is permanent, the shorter lived portions will be more frequently repaired and renewed, and vice versa. It tends to give results consistent with sound judgment. The method, then, may be summarized as follows:

1. Segregate the building into its component parts, determine the life of each component, and express same (by percentage) in terms of the life of the most durable part.

2. Determine the percentage of each component as related to the total cost of the building.

The product of these factors for each component part, added up, gives a term expressing the balanced relation of the whole, to the period of life of the most durable part, which may then be reduced to the resultant life of the structure. The life of the various principal components of a building, have been worked out by various competent builders.

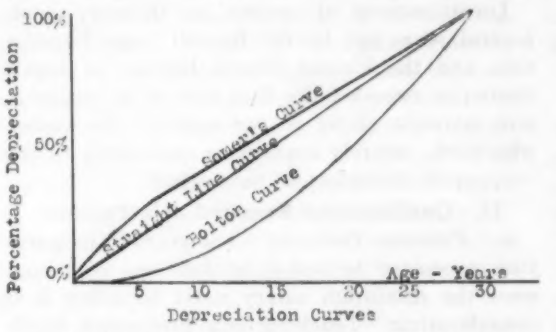
Shape of Depreciation Curve.

It is ordinarily assumed by appraisers, that depreciation is a straight line function from the origin of the structure to the end of the life of that structure. This assumption is commonly used in the appraisal of public utilities, and by insurance companies in the determination of insurance rates. Other shapes of curves, however, are advocated by modern investigators of this subject. One proposed by the Somers Appraisal Company, widely recognized as authority on appraisal work, assumes a greater rate of depreciation during the first years in the life of the structure than during its later life. This is sustained by the following argument:

First: If the component parts are assumed to depreciate by the straight line rule, there is in excess of this uniform depreciation an initial depreciation extending over the first few years of the life of the building, due to settlement resulting in cracks and strains, and marred finish in the building.

Second: The factor of attractiveness is of most potency during the early life of the building.

On the other hand, curves are proposed by Bolton showing depreciation having a smaller



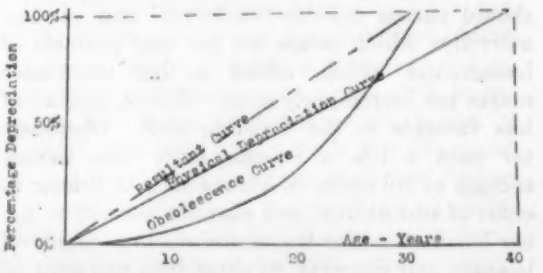
Depreciation Curves

rate during the first few years of life of the structure, and gradually increasing with the life. This agrees with the general conception of decay, viz: that where properly protected, decay is slow in starting; but having once started, it progresses with an increasing ratio until the structure is destroyed.

Because of the various factors affecting depreciation, and the varying degree in which they affect it; and because of the incompleteness of the data resulting in a considerable divergence of opinion, it is believed that we should be unwarranted in accepting anything other than a straight line variation of depreciation. This is particularly true of physical depreciation. It is evident that depreciation due to obsolescence could not be a straight line function. For the first few years of its life, a structure normally will be thoroly modern. As the structure grows older, this factor becomes of increasing importance in depreciating its value, both as to utility and saleability.

The Typical Curve.

Theoretically, physical depreciation should control for the first years of the life of the structure, and obsolescence for the later years, and at a different rate. To work this out, however, is a refinement inconsistent with the present available data, and it is recommended that the depreciation be assumed a straight line function starting from the origin of the structure and extending to the shorter end of its predicted life—whether this be due to physical decay or obsolescence.



Showing Typical Physical and Obsolescence Depreciation

A further viewpoint tending to strengthen the assumption of the resultant straight depreciation, is the idea of potential utility of the structure. It seems reasonable to express this in terms of the remaining life of the structure, as related to its whole life. This is directly expressed by the straight line. It must be admitted, however, that other factors might enter, such as the efficiency of the plant which would lessen the value of the potential utility remaining in the building; but in so simple a utility as a school, this should be of small importance.

Conclusions on Building.

First: Tabulate cost of buildings and cost of betterments.

Second: Determine the valuation by the cubic unit plan as mentioned under Replacement Costs. Flexibility is accomplished by the suggested revisions of replacement value. At such times it is also possible to make a revision of the rate of depreciation if experience proves the assumed ones in error. Such corrections should not produce undue fluctuations in value.

Third: Assume a period of life as determined from a combination of the various factors heretofore discussed under Probable Usable Life.

Fourth: Work out the depreciation tables for each type of building, on the basis of the straight line depreciation shown under The Typical Curve.

Fifth: Work out the present value of each building from the depreciation tables.

THE PLAUSIBLE STRANGER.

Fred J. Ward.

Every year clever salesmen go about among trusting members of school boards and sell thousands of dollars' worth of maps, charts, and supplies, which they invariably claim to be the sure thing on the royal road to learning.

A principal in a little town in eastern Montana tells the following story of how his school board was "bilked" out of about one hundred and fifty dollars, by such a salesman:

"He came to Mr. Higbe who was the chairman of the school board and gave him a convincing talk on the merits of certain historical charts that he was selling at forty-nine dollars and fifty cents each.

" 'Now, Mr. Higbe,' he said, producing a warrant book, 'I have talked to the other members of the board (this was not so) and they are in favor of buying three of these splendid charts but as you are the chairman, they wanted you to sign the school warrant before they took any action.'

"So Mr. Higbe signed the school warrant, thinking that the other two members had expressed their willingness to make the purchase.

"The salesman then went to Mr. Bush and Mr. Eggleson, the other members of the board, giving each in turn the same convincing talk on the value of the charts and getting them both to sign the warrant on the strength of Mr. Higbe's signature.

"When these three men got together and learned how they had been wheedled into buying expensive equipment of very doubtful value, they were very indignant. They tried to stop payment of the warrant at the bank but they were too late.

"It took over a year for them to get the charts from the firm this man represented. They were compelled to put the matter into the hands of an attorney before the affair was settled but this was effort wasted for when the charts eventually arrived, they were found to be unsuitable for classroom use."

There are dozens of reputable firms selling school supplies in a legitimate way and many of

(Concluded on Page 74)

A COMPARISON OF TEACHERS' SALARIES AND OPPORTUNITIES WITH THOSE OBTAINING IN THE BUSINESS WORLD

An Important Report of the Ohio Consumers' League

The most important problem of the present year, which confronts boards of education without exception, is that of revising the schedules of salaries paid to teachers. Thru the courtesy of Acting Supt. R. G. Jones of Cleveland, we are presenting below, a statement of the principles for fixing teachers' salaries which every board of education must take into account. The study was made by the Ohio Consumers' League for the Cleveland Board of Education as a suggestive basis for revising the local schedule of salaries.

The study contains also considerable valuable material by which it is possible to compare the services and the salaries of teachers with conditions in the business world. While the figures are those given for a large city where living costs are high and business opportunities are unusually excellent, the fundamental principles can be applied to every city and village in the United States.

The study was made by Miss Wilma I. Ball, executive secretary of the League, and Miss Frances Browne, chairman of the Academic Committee of Bryn Mawr College.—*The Editor.*

A. *Elements which should determine a minimum salary in the teaching profession.* After making a survey of the field of opportunity open to women in Cleveland in the business world and considering teachers' salaries in relation to those paid in business, the Consumers' League of Ohio begs to make the following suggestions as to the necessary basis for the determination of a living salary in the teaching profession.

I. The salary should cover the bare cost of food, clothing and shelter. It should be paid on the basis of a woman with dependents.

II. It should take into account the qualifications demanded of an individual entering the teaching profession.

a. Previous training.

b. Standard of living.

III. It should take into account the necessity to lay by for old age.

IV. It should provide leeway over and above living expenses to compensate the teacher for the longer time of probation exacted in the profession. Business offers to an individual opportunity to prove in a short time his ability to earn and to make a rapid advance away from the bare minimum.

I. The Cost of Living.

I. *The salary should cover the bare cost of food, clothing and shelter. It should be paid on the basis of a woman with dependents.* It is unanimously conceded by all authorities on wages that the estimate of a minimum wage in any business or profession *must* cover the cost of living. There has been no exhaustive survey of prices for total living expenses in Cleveland at the present time, but a conservative estimate based on figures supplied by the Girls' Board and Room Registry and by the United States Bureau of Labor Statistics and from surveys in other localities would put the barest living for a woman supporting herself alone at $20 a week, or $1,020 a year. Statistics show that teachers who are earning less than this and paying their whole living expenses are, for the most part, in debt. It is a very common thing to hear a teacher say sometime in December, "I am not out of debt for my summer yet." If they are not in debt, they are either living on their families (in which case relatives instead of the state are subsidizing education) or they are underfed, poorly clad and improperly housed. In the latter case the worker soon wears out her usefulness to her profession. It is obvious that a worker must be paid a wage adequate to maintain efficiency. Another phase of the content of a living wage must be brought out. After very thoro investigation the women in Industry Service of the United States Department of Labor in their pamphlet on *Standards Governing the Employment of Women in Industry,* for December 12, 1918, recommended that "Wages should be established on the basis of occupation and not on the basis of sex. The minimum wage rate should *cover cost of living for dependents* and not merely for the individual." Investigation shows this to be particularly applicable in the case of teachers who are *very frequently* supporting one or more people or their salaries are contributing in a large measure to the support of parents or younger children.

Investigations of women in industry made several years ago by the Russell Sage Foundation and the United States Bureau of Labor Statistics revealed the fact that at a conservative estimate about 80 per cent of the women who work, entirely support or contribute to the support of others beside themselves.

II. Qualifications Required of a Teacher.

a. *Previous Training.* The years of preparation necessary before a teacher can command even the minimum salary must be taken into consideration. Teaching is a profession which requires a preliminary period of special preparation. The community must recognize this and admit the increased value of the trained worker by enabling her to enter the teaching profession under an economic status which takes this training into account. If training is to be required, certainly it should be considered in the beginning salaries, in order to have teaching compare favorably with other openings where *no* training is required. At present the washerwoman wages are commensurate to the salary of a grade teacher, and the beginning salary of a woman going into business from high school never falls as low as the possible minimum of a teacher just out of normal school, notwithstanding the fact that the teacher has not only not been earning during her two years' normal course, but has invested her time and her native ability (both of which have a value which may be counted in dollars and cents) to make herself more valuable to the work she is undertaking.

b. *Standard of Living.* Previous training is not the only qualification required in teaching. Society demands in addition that the teacher maintain a dignified standard of living. She should pursue definite intellectual and cultural activities, which create for her that richness of background which, added to her experience makes her increasingly more valuable, instead of less valuable to the teaching staff. Obviously for such a life a woman must have money enough to subscribe to periodicals, to belong to clubs of educational and current interest, to use her leisure time for travel and reading, to attend lectures and concerts, to enter into problems of social and community interest; it is to these things her spare time should be given rather than to the tedious making over of out-worn garments, the puzzling preparing of "saving" meals and the working at miscellaneous jobs that offer pay, all in the vain attempt to keep hold of the two ends that never can be made to meet. The National Education Association issued a bulletin on *Teachers' Salaries and the Cost of Living,* in July, 1918, in which it stated on page 28 that "teachers should receive not only a living wage but salaries sufficient to enable them to *live respectfully,* to *keep abreast of the times professionally* and to *lay by something for old age.*" This is not only reasonable but necessary if the schools are to fulfill their mission. In this report it is estimated from figures covering conditions in all parts of the United States and comparisons with salary rates in other lines of work that a "teacher should receive in 1918 an average of $1,428 in order that the average salary may be a living salary." The question of expenditure necessary for summer or other courses of study is considered subsequently.

III. The Old Age Factor.

III. *It should take into account the necessity to lay by for old age.* Since teaching does not offer the possibilities of an accumulated income or higher earnings in later life as business does, it is necessary for the teacher to lay by something for her old age. This consideration must enter into her earliest calculations since the savings possible out of the fixed yearly salary is not sufficient to cover the requirements of a most conservative estimate of a fair income for the support of old age, or professional disability. For proof of this ask any insurance agency or investment house if they are able to work up any sort of a clientele among teachers. They are certain to answer in the negative, adding that "We can't argue with them when they show us their budget." That this liability must be included in a list of teachers' expenditures is conceded by all who have given the situation practical attention. Theoretically an educational system should never be in the embarrassing position of being morally obligated to pay a pension to its teachers. If adequate salaries were paid, this moral obligation would cease to exist.

IV. Parallel Opportunities in Business.

IV. *Leeway over living expenses to parallel opportunities in business to make a rapid advance away from initial salary.* Where the facts which determine minimum salaries in the commercial world are compared with those which determine minimum salaries in the teaching system, it is impossible not to be strongly impressed with this striking difference; that altho the beginning wage offered to the cash girl or office clerk may not far exceed that offered to the graduate from normal school, the opportunity is there for the cash girl or clerk to prove her earning ability and within three or six months look for a raise in her salary. Thru bonus systems and percentages, thru premiums put on ingenuity and creative work, thru constant demand for new phases and types of ability, there is an ever present opportunity for her to climb up the scale away from her initial amount. Where a minimum salary remains fixed during a set probation period these facts must be recognized in their relation to the competitive problem. In other words, the method of advancement now obtaining in the teaching profession tends rather to turn a girl away from it than to attract her to it.

Elements Which Enter Into An "Attracting" Salary in Any Pursuit.

(These elements appear at the present time in the business world but not in the teaching system.)

I. Monetary Advantages.

a. *Flexible Salary Scale.* In searching the field of commercial life for opportunities open to women in Cleveland, opportunities which attract

the same type of women that teaching does, the Consumers' League has studied twelve lines of work: Banking, library work, nursing, dietetics, factory work, newspaper work, department stores, advertising, social work, secretarial work, insurance and bond selling. The study brought forth many interesting facts concerning the value an employer places on various types of labor and the range of opportunity for and place of special talent in the professional and commercial world. In the first place it was discovered that the average minimum wage in these occupations was $822 a year. This amount is reached by taking the barest minimum offered in each. In its computation do not appear the percentages on sales and bonuses on quality, character or amount of work, or other profits which in a great many of the positions such as factory work and selling of all types, begin to accrue to the wage earner almost immediately. It is a minimum about equal to a teachers' minimum but there is a difference. Positions beginning at $500 allow a rapid advancement; positions beginning at $1,000 a year, a slightly slower advancement. In other words, at the end of a five year period the woman in business knows that if she applies herself she may be earning a good wage. For instance, the girl who goes into factory work altho she starts at the beginning wage of $10 or $12 a week, knows that within two weeks she *may* be making $35 on piece work. Even the cash girl may ask for a raise at the end of three months and the saleswoman sees the result of her work in the extra per cent on her weekly pay rate as soon as she has earned it. But this is looking at conditions at the lower end of the scale of opportunity. In the positions requiring more intelligence and which are correspondingly more attractive to the type of woman who should be teaching in the schools, a much greater degree of increase in earning amount is possible, together with unlimited opportunity at the top.

b. *Indeterminate Maximum.* In the commercial world it is not possible to compute an average maximum salary. A businesswoman creates her own maximum salary by her own effort. Salaries that are being earned today by capable women range all the way from $5,000 to $16,000 and over. A teacher who, after long service, left the profession to go into business makes the statement that business pays twice as much to the average individual as teaching does and four times as much to the exceptional person. When a worker can compute the rate and amount of her salary advance according to a fixed, graded schedule, she is able also to calculate just how much effort she will have to put into her work to obtain this advance. Human beings tend to expend the minimum of effort to this end. If on the other hand, the worker can be conscious that there is no limit at the top, that increase in professional ability will bring not only increased professional prestige but greater financial resources, the incentive to better work never flags and the maximum of creative effort is induced in the worker. If a fixed salary schedule is used the tendency is to keep the attention both of the employer and the worker directed towards the problems of material compensation rather than towards professional improvement.

c. *Practical Assistance in Self-improvement.* Not only are business methods so organized as to demand from the individual the best that she can give, but employers are constantly on the watch to help her improve her contribution. Almost any business will aim to conserve and improve its able employes by encouraging them to develop their particular lines of work. Time is allowed them to attend conferences of special interest, their expenses being paid; opportunities of varying types are afforded them, on the company's time to acquire technical and cultural assets. In other words, the commercial world pays its employes to learn of the best authorities. A school pursues the opposite course when it requires a teacher to study outside of regular hours and to finance this extra study out of a salary that does not warrant it. Altho professional efficiency demands such work, only a sufficient and a proper adjustment of time can justify an educational system in requiring it.

II. Swift Recognition of Ability.

In the foregoing discussion of the circumstances conditioning wage increases in the commercial world it is discovered that in business, ability receives a swift recognition. The recognition is evidenced, not in terms of dollars and cents alone. When an individual has proved the worth of her contribution she finds her return measured by an improvement of the conditions under which she works. She is given pleasanter and more comfortable surroundings, physical and nervous wear and tear continuingly decreased, facts which in themselves tend to develop intensively the character of the individual contribution. Thus in the business world, the laws of professional advance are followed and the quality of production corresponds to that advance. If this same law could be applied in the teaching system, if, as a teacher advanced in experience and capability, she could expect an ever increasing improvement in the conditions under which she works, it is obvious that the value of her contribution to education would be intensified.

a. *Generous Recognition of Special Creative Work.* For the recognition of special *creative* ability also any well administered business has its machinery of recompense carefully organized. Efficiency demands this. A teacher who for instance, teaches her full day and more in a classroom and is asked after teaching hours to coach the school dramatics, edit the paper, chaperone at dances, or to do any one of the thousand things that may in a school be demanded of a teacher simply because she shows talent in that line, is making a contribution to the school for which any other type of organization would pay well. She might sell her ability many times over in the community, but the school demands it of her as a matter of course. The businessman, however, knows well the value of such individual contribution and sees to it that such value is well recompensed in order that it may constantly increase and accrue to the organization which fosters it.

b. *Variety of Opportunity for Different Types of Ability.* Not only is special creative ability given its place in the commercial world, but due emphasis is laid on the furnishing of a variety of opportunity for different types of ability. Department stores, banks, factories, and clerical offices offer many modifications of the same line of work and make it a point to change their employes from one part of the work to another so that there will never be the danger of the square peg trying to fit itself into the round hole. Even in such a highly organized system as the public library it is considered of prime importance to try the worker out under many different conditions, conditions which include variety not only in the type of work, but in surroundings and personal contacts, since these enter so largely into the psychology of the individual's success. Again such businesses as bond selling, insurance, restaurant management, etc., offer opportunity for experiment with a view to specialization, the scope for which is great. The school system on the other hand tends more and more to standardize the method and content of the work it demands, and by its complex system of supervision curbs individual independence and creative power: until the system is so ordered that it becomes the medium thru which an individual may develop his creative resources, it will not attract the best types of ability.

III. Contact With the Outside World.

In addition to surroundings which admit of ever greater activity and furnish incentive to constant progress, the business opportunity offers to the individual still another condition which contributes indirectly tho vitally to a working efficiency. This is the varied and intangible field which may be summed up in the words "contact with the world." The woman in business is thrown constantly with people in other lines of work and directly touches currents and cross currents of social activity and human interests. Teaching conditions are not favorable to this type of experience. Could not an educational system have for its policy the aim to provide for its teachers as much opportunity for contact with the outside world as possible? The work of educating children should be kept vital and integrally a part of the world in which the children are to live. Certainly then its teachers should know the world.

IV. The Element of Responsibility.

The highest power of achievement in any line of work is only possible under conditions which produce personal responsibility within the worker. With the individual himself must rest the responsibility for the success or failure of his work. Business conditions succeed in creating in the worker this attitude by arranging an automatic method of determining the value of the work done. The criterion upon which such determination is based lies in the results produced—definite contributions made to a business by a worker which are definitely rewarded. The method of judging these is characterized by their valuation in concrete form in its relation to the work. The school system with its close supervision of teachers and fixed salary schedule provides small incentive for an individual to improve her work on her own initiative, but rather makes for a minimum of effort on her part. It is often said "Teachers take so little interest in their work." If there were a flexible salary scale which could respond to her increased effort, if the quality of her work were more dependent on her own thought and her idea of her profession and less on the demands which one or two and often more special supervisors exact of her, a much higher standard of teaching could be procured. If in other words the method of payment could be less rigidly automatic and the means of judging of the value of the work could be more automatic, conditions such as make for success in business activity could be more nearly approximated in the school system. If the classroom results as such could be rewarded, personal responsibility could be induced much more successfully. The valuation of *results* still contains the opportunity for criticising *method*, a process the importance of which cannot be lost sight of in determining the character of an educational result. When *results* rather than *individuals* are supervised the manner of criticism immediately becomes more direct and less personal. Such a method will always work towards a greater degree of efficiency in the individual. Competition is another enormously important element in the automatic method of valuation, and its presence necessary to obtain results. It is most skillfully utilized in the commercial world. Social economy owes its existence to the elements in human nature that respond to this factor. Business organizations recognize this and provide a free competitive environment. School conditions should give it a more basic recognition. Competition in regard to quality

of work cannot be a vital factor in a system wherein the salary schedule is so automatic in its application as is the case in the schools. A salary scale should never become fixed and binding. Variation in response to individual achievement should be possible, and should be accepted by the workers as just.

Conclusion.

In conclusion it will be seen that commercial and industrial conditions offer better financial opportunities to women than teaching does and at the same time conditions for work that respond to the demands of human psychology. The school system must also learn this lesson, else it will continue to lose its teachers, because a favorable environment is always ultimately sought by the individual.

Vitalizing factors in conditions supplied by the employer in the commercial world could be listed as follows:

Premium on ability.
Premium on creative work.
Penalty for slackness.
Opportunity for individual contribution.
  Thru the method of conducting work.
  Thru the use of conditions for work and equipment provided.
Monetary recognition of such contribution.
Competitive valuation of such contribution.
Stress laid on loyalty to employer and profession.
Dignity of profession maintained.
  Independence in work.
  Minimum of supervision.
  Proper working environment.

We are here brought to a realization that in creating conditions adjusted to produce the maximum of efficiency the commercial employer has in reality simply done his best to create in the employe a professional attitude towards his work. In the present day in business the conditions which induce this must often be artificial. In teaching the professional attitude should of necessity exist. The fact that it does not always exist, that teaching systems have so far lost the vitalizing factors which obtain in a true professional environment, is manifest in the ever decreasing size of the group from which they are able to draw material. They have been brought to the necessity of competing with the commercial world in order to attract workers. Out of these conditions has arisen the situation which justifies such a survey as the foregoing. Society owes to every worker a living wage and conditions for work which induce a healthy, creative life of the individual faculties. Whether as in business the success of an operation is measured by monetary return or, as in the professional world, by the increase of the inherent value of the work itself, these laws underlie the working process and their application provide the basis upon which the working structure must rest.

For comparison of the work for women of like training as well as like ability with the teacher, we must go to the professional world. In the professions of medicine, law, dentistry, etc., the situation stated in figures still points to the same differences—a much wider field and greater opportunity at the top than is offered in the teaching profession. Here again the same psychological appeal is made as in the business world. A woman may work thru the hardships of greater risk and temporary short payment, but very rapidly ability earns its own place and the individual holds her position as an independent worker in her field, responsible to society direct, and not to individuals over her, for the quality and value of her contribution. The public school system as a unit in the educational profession, must consider these psychological elements and learn from the methods of organized business to create within its own system, methods recognizing all these psychological elements; great commercial undertakings have found it profitable to do so, and they attract the right human material to their doors. Certainly the public school system if it wishes to remain vital to the state, can do no less.

Recommendations.

Certain modifications of the present school system are here suggested in order that the school opportunity may more nearly parallel the business opportunity and therefore make an equal appeal to the young woman about to enter a "gainful occupation."

1. Less standardized rate of advancements.
2. Less supervision.
3. More varieties of self-improvement recognized.
4. More rapid attainment of socalled regular maximum.
5. Open door to possible maximum.

In addition, the Committee on Education of the Consumers' League presents to the school board the following recommendations:

1. That the minimum teaching salary be not less than $1,000 per year.
2. That the graded salary scale be used only as a basis for a flexible method of payment, allowing for swifter attainment of average maximum and including no declaration of a fixed maximum.
3. Changes in the operation of the system of appointment, promotion and dismissal, involving a less complex system of supervision and so ordered as to give the teacher opportunity to function efficiently as a human individual.
4. Practical emphasis on the dignity of the profession by extra payment for work done for the school outside of hours, and a program of self-improvement included as a part and not outside of the regular work.

Cost of Living in Cleveland, 1918-1919.

As shown by figures on file at Girls' Board and Room Registry, City Hall, Cleveland.

Lodging.

Single Room Without Meals	Room & Kitchenette for Two People	Room and Two Meals
$4.00 to $5.00	$7.00 to $10.00	$10.00 to $12.00
		12.00 to 15.00

Luncheons at $0.25 for each week day.
Luncheons at $0.35 for each Sunday.

Extracts From a Government Survey of a Third Class City in New York State For 1918.

Clothes	$4.00 per week
Other expenditures	3.35 per week

(Including car fare, dentist and doctor bills, laundry and all other essential purchases not actually clothing.)

Calculation on the Basis of These Figures.

Room and two meals	$10.00
Six luncheons	1.50
Sunday lunch	.35
Clothes	4.00
Other expenses	3.35
Cost per week in Cleveland	$19.20

STORAGE OF COAL IN SCHOOLS WITHOUT DANGER OF SPONTANEOUS COMBUSTION

E. S. Hallett, Chief Engineer, Board of Education,
St. Louis, Mo.

The disturbance of the coal situation due to the war caused many schools to attempt to store a larger supply of coal during the summer with the result that fires have occurred in the storage bins. As the St. Louis method of handling such storage has been extremely successful it is deemed advisable to give it wider publicity thru the School Board Journal.

Spontaneous combustion of coal results from the accumulation of the volatile hydrocarbon gas of bituminous coal in pockets or cavities by upward displacement. It is generally caused by dropping slack or fine coal upon a pile of lumps so that a conical cap of powdered coal forms a hollow container of impervious material. This cap fills with a mixture of gas, air and vapor of water and remains quiet, and this is the mixture and condition to produce combustion.

It is not yet known to what extent the sulphur of the iron pyrites may contribute to the ignition. It is well known that moisture hastens the ignition in two ways, first it furnishes the vapor for the gas mixture and second, what is perhaps more important, it makes the cap of slack impervious to the gas, thereby preventing its escape.

The practice with the St. Louis schools is to provide storage in grade schools for practically a year's supply amounting to two hundred or three hundred tons each. More than 125 such storage bunkers are filled each summer and a fire is almost unknown.

The provisions necessary to prevent spontaneous combustion are as follows: The coal is taken from cars and hauled to the school. The contract with the coal dealer requires that the coal be handled by forking with the tines 1½ inches apart. To be sure that this provision is strictly adhered to the driver of every wagon must say he saw the load forked and that there was no dirt in the coal. While the board maintains inspectors at the weighing stations the system of making the drivers responsible for the condition of the coal has given the best practical results. If a bad load of slack is dumped no more coal can be unloaded there until a reckoning is had with the coal company.

To prevent the accumulation of the fine coal which necessarily results from handling, a chute is put up to deflect the coal into different parts of the bunker to avoid the building up of the coal under the doorway. Occasionally a seepage occurs in a wall of the building and in such cases the engineer builds up a wall of blocks of coal against the building wall, thereby leaving ventilation at this point.

The observance of these simple and inexpensive precautions has enabled the storage of coal which gives a lower price for the summer delivery and insures against the closing of schools on account of temporary coal shortage. As a result of this practice no school has ever been closed for a day for lack of coal.

BUILDING AND FINANCE.

Ogden, Utah, on April 16th voted a bond issue of $500,000 for the erection of two junior high schools. The present bond issue is intended to be used for the completion of the building program thru which the city will be equipped with three junior high school buildings.

The minimum wage act presented to the legislature of Oregon in March has been passed and signed by the governor of the state. The measure was supported by Mrs. Thompson in the house and by Sen. C. R. Eberhard, a member of the LaGrande board of education, in the senate.

A law has been passed under which all of the counties of Oregon operate under one high school law. The old law was largely favored by the big cities having first-class districts and the new law is intended to insure a high school education to every boy and girl in the state.

The proposed increase in the salary of the State Superintendent of Public Instruction of Oregon failed of passage in the Senate after unanimous action on the part of the House. The proposed increase was fixed at $600.

THE OTTAWA HIGH SCHOOL, OTTAWA, KANS.
Geo. P. Washburn & Son, Architects.

TWO MODERN KANSAS SCHOOLS.

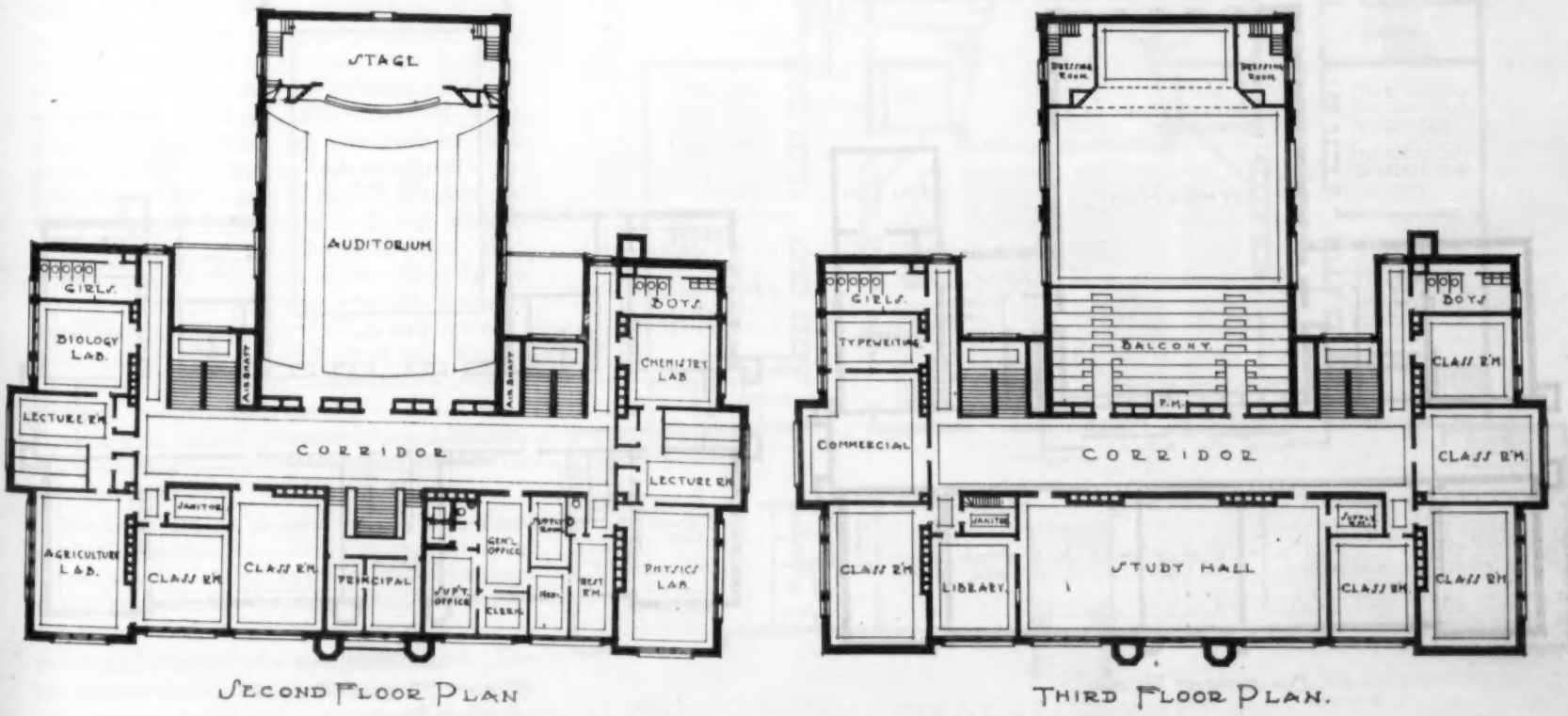
The two buildings shown in the accompanying cuts are the recent additions to the public school system in Ottawa, Kansas. Both buildings were erected in 1917 and were designed by Geo. P. Washburn & Son, Architects, of Ottawa.

The Ottawa High School is the result of many weeks careful study by the architects together with the superintendent and the board of education. Long sessions were spent going over sketches and various details of the building plans and visits were made to some of the most modern schools in the middle west. It was the idea of the board and the architects to have the best that could be obtained and much more time was spent in the preliminary work than is usually the case. The result, however, has more than justified the effort and after a year's use the building has proved to be all that was expected.

The style of architecture is English collegiate; three full stories in height above the ground, faced with rough texture brick in varying shades and trimmed with Carthage limestone.

The basement, which is below the ground floor contains the gymnasium, 50 by 80 feet, boys' and girls' shower baths and lockers, boiler room, fuel room and space for the ventilation apparatus.

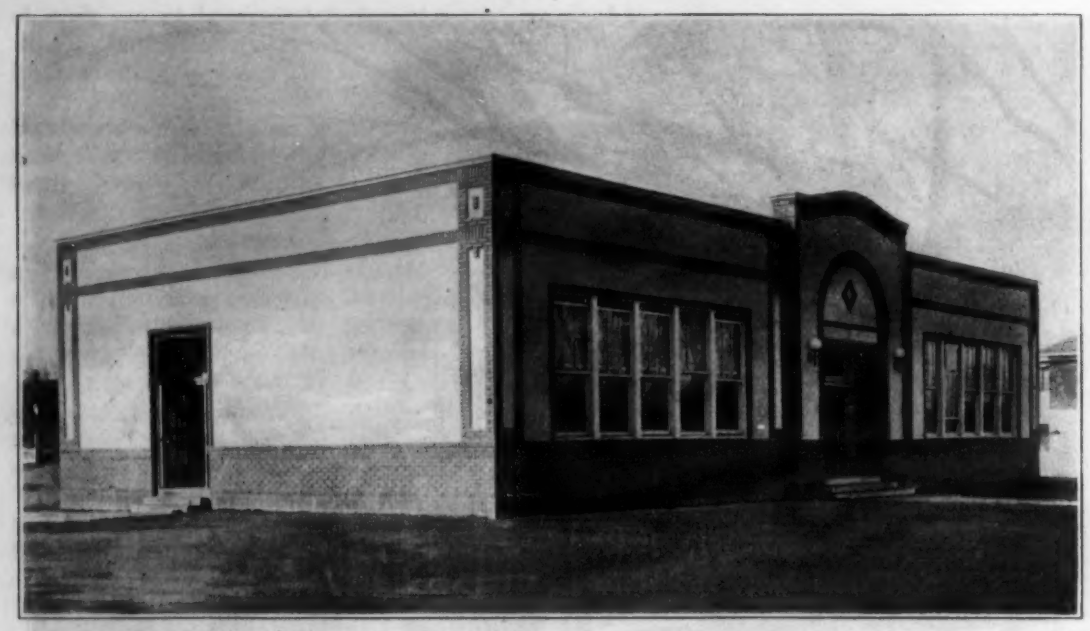
The ground floor or first floor just one step above the grade level is devoted to the vocational department of the school. The manual training bench and lathe room, the machine



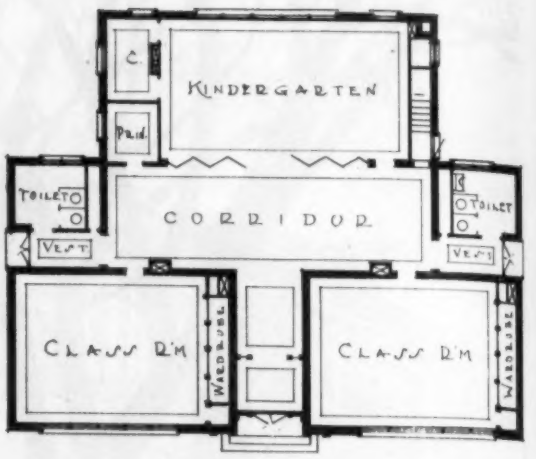
SECOND FLOOR PLAN

THIRD FLOOR PLAN.

FLOOR PLANS OF THE OTTAWA HIGH SCHOOL, OTTAWA, KANS.



THE GARFIELD SCHOOL, OTTAWA, KANS.
Geo. P. Washburn & Son, Architects.



FLOOR PLAN

THE GARFIELD SCHOOL, OTTAWA, KANS.

room, the finishing and mechanical drawing rooms are to the right of the main entrance while the home economics department is to the left. Included in this department are the domestic science laboratory, a large pantry and a model dining room, also a large well lighted sewing room with a form and fitting room in connection. The spectators' balcony in the gymnasium opens off the main corridor on the ground floor.

At the right of the main entrance on the second floor are the offices of the superintendent, clerk of the school board, the medical inspector's room, a teachers' rest room, a large storage room for school supplies, a vault and necessary toilet rooms. The office of the high school principal is directly over the front entrance and consists of a reception room and a private office.

Directly opposite the main entrance stairway is the auditorium with a seating capacity of 500 on the main floor. The balcony which opens off the third floor corridor has additional seating for 250 people. The stage is large and has considerable equipment including scenery, drops, etc. Two dressing rooms are built in above the stage floor.

The balance of the second floor is occupied by the science and mathematics departments. To the right are the chemistry and physics laboratories and a lecture room between and to the left are the biology and agriculture laboratories and a connecting lecture room. The laboratories are fully equipped with modern laboratory furniture and apparatus and the lecture rooms are fitted with terraced seats and demonstration tables.

The third floor contains the study hall with capacity for 150 students, the school library, the commercial department and language rooms. Toilet rooms for both boys and girls are located on each floor and steel lockers for all students are recessed into the corridor walls. The entire building is fireproof, with reinforced concrete floors and metal interior trim. The finish floors of the corridors and auditorium are cement and of the classrooms, gymnasium and laboratories are maple.

The building is heated by direct radiation in the classrooms and ventilated by a fan system with tempered air. The temperature of the building is controlled by a system of temperature regulation and an electric program clock takes care of the recitation periods thruout the building.

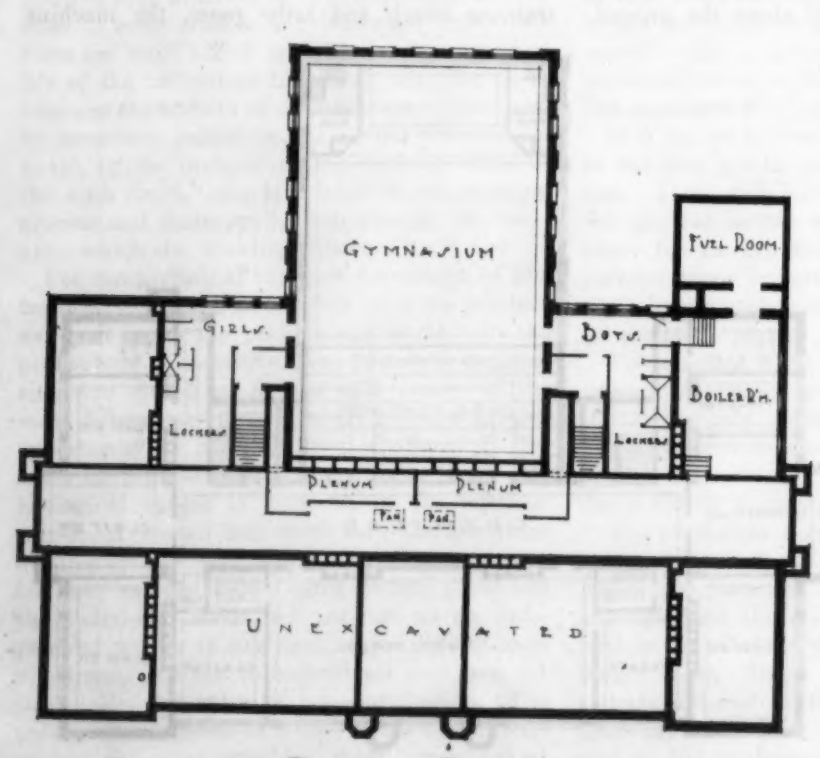
The total cost of the high school building including plumbing, heating, electric wiring, lighting fixtures and equipment was $143,794.00.

THE GARFIELD SCHOOL.

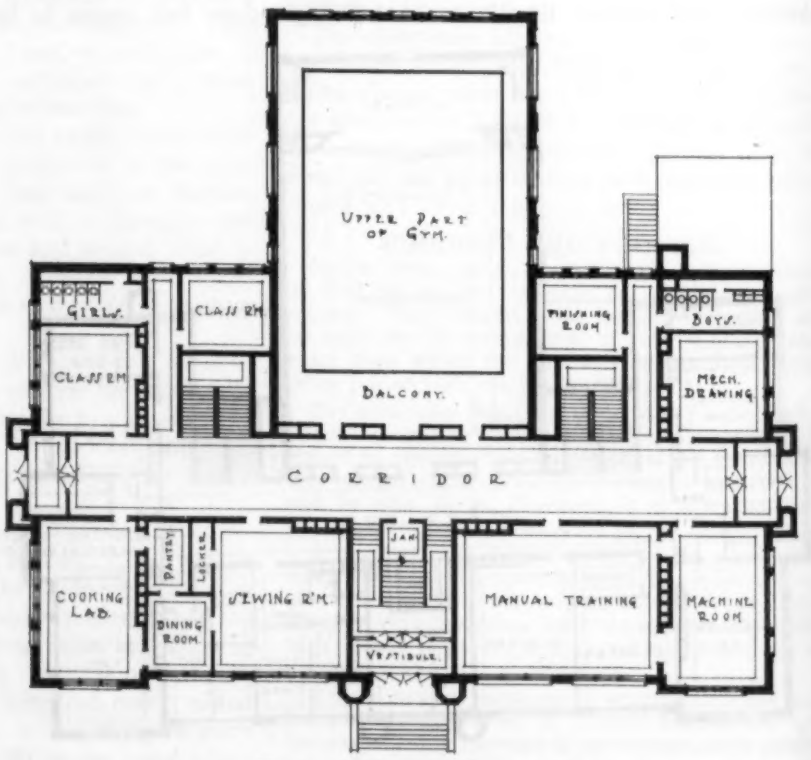
The Garfield School was erected in the south part of the city to take care of the present needs of the kindergarten, first and second grades, with the idea of future extensions to each end of the building for other grades as may be required.

The building is a one-story structure built of hollow tile and stucco, trimmed with dark red paving brick. A basement for the heating and ventilation apparatus only is located under the kindergarten room. The two classrooms are 23 by 30 feet and each has a built-in ventilated wardrobe with vertical sliding doors. The kindergarten room is 22 by 38 feet, connected with the main corridor by folding doors, which when opened afford an excellent room for community meetings, etc. The building is heated by direct steam radiation and ventilated by a fan.

The total cost of the Garfield School building including plumbing and heating was about $15,000.



BASEMENT PLAN.



FIRST FLOOR PLAN

FLOOR PLANS OF THE OTTAWA HIGH SCHOOL, OTTAWA, KANS.

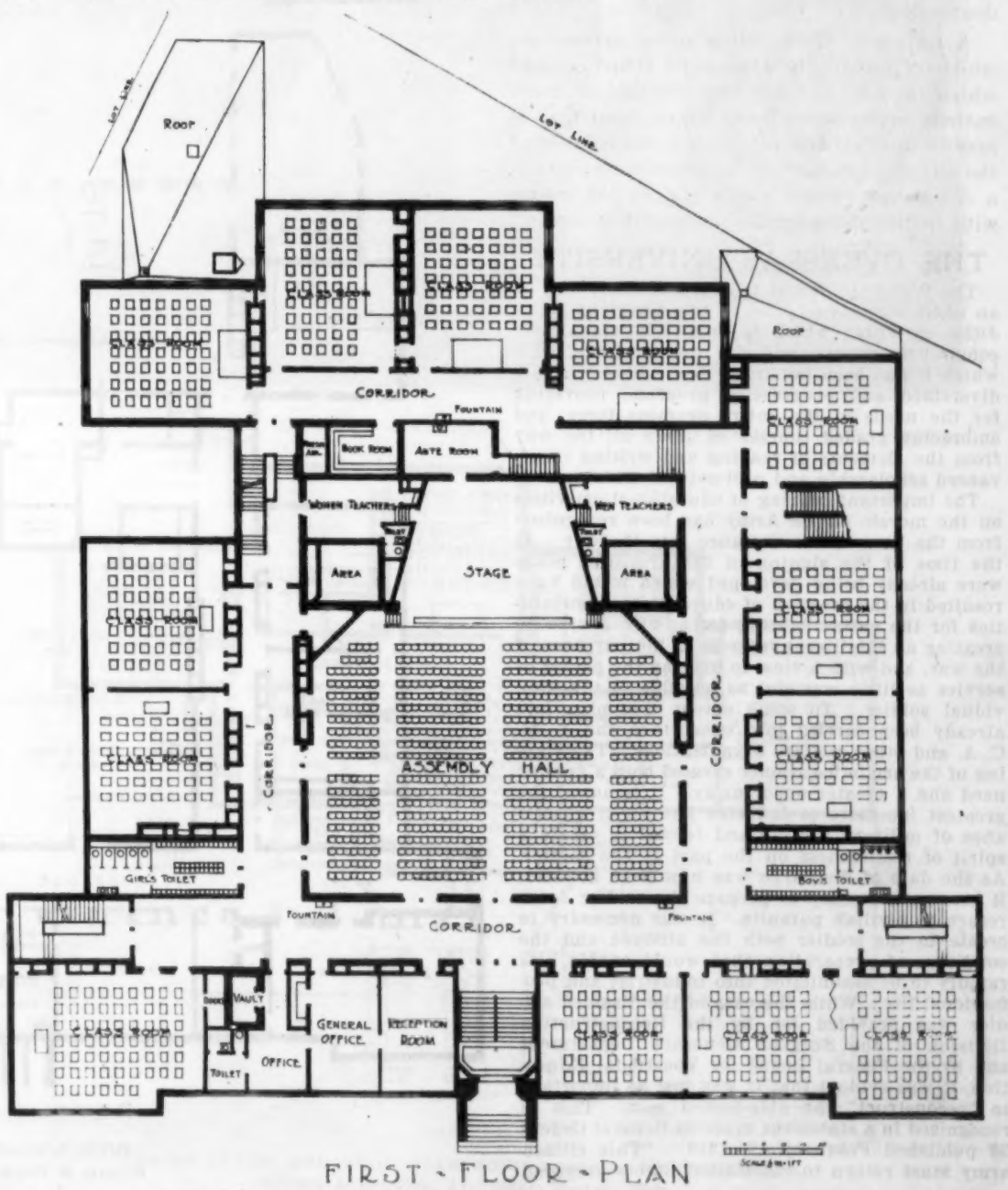
TAUNTON HIGH SCHOOL, TAUNTON, MASS. Kilham & Hopkins, Architects, Boston, Mass.

TWO MASSACHUSETTS HIGH SCHOOL BUILDINGS.

The necessity of economizing to the utmost in building materials and labor has not been altogether an evil which the war brought on in its train. In fact, in many communities, this very necessity for economy has demonstrated the possibility of utilizing buildings and materials that formerly would have been discarded and lost. In realty the war has caused us to discover unsuspected resources in architectural ingenuity and in the utility of apparently wornout buildings.

An illustration of this is to be found in the high school at Taunton, Mass., which had outlived its usefulness and which, both structurally and educationally, appeared to be beyond redemption. Careful planning on the part of the architects, Messrs. Kilham & Hopkins, Boston, has made it possible to utilize practically all of the old school and to produce what is architecturally and from the standpoint of utility, an entirely new building. The school of which plans and illustrations are presented on these pages, includes at the rear four rooms and a corridor which were a part of the old building and which have not been touched. It also includes of the old structure only the brick walls. By a careful study of the needs of the school for the next ten years the architects were able to design an entirely new assembly hall, a new series of classrooms on the second floor at the front of the building and several classrooms adjoining the four rooms mentioned above. The result gives a high school accommodating 1,200 students and affording every necessary facility for a complete metropolitan high school.

The basement which is almost entirely above ground, contains two large manual training shops, with adjoining tool and lumber storage rooms, space for the art department, the domestic science department, boys' and girls' lunchrooms and physical education department. The gymnasium has a complete complement of locker and dressing rooms, and a private office for the physical director. The room is sixteen feet high



FIRST - FLOOR - PLAN

HIGH SCHOOL, TAUNTON, MASS. Kilham & Hopkins, Architects, Boston.

and is fully equipped for all general school purposes. It has entrances so arranged that the room can be used independently of the rest of the school building.

On the main floor of the building are twelve standard classrooms and one study room. In addition there are retiring rooms for men and women teachers and a suite of offices. The assembly hall occupies the middle of the first floor and is equipped with an unusually large stage, suitable for students' theatricals and all general school purposes.

On the second floor there are ten additional classrooms, a large library and three rooms for the business instruction department.

The building is carried up to a third floor for only a small section at the rear. Here there is one general classroom, a locker room for physics, a chemistry laboratory, a biological laboratory, a general science room and a large locker room. Space is provided for stock instruments and supplies and an office for the head of the department.

The building is of semi-fireproof construction and the stairways which are separated from the corridors by means of glass and steel doors, are entirely fire and smokeproof.

The building cost $230,000 and is completely equipped.

The Milton High School.

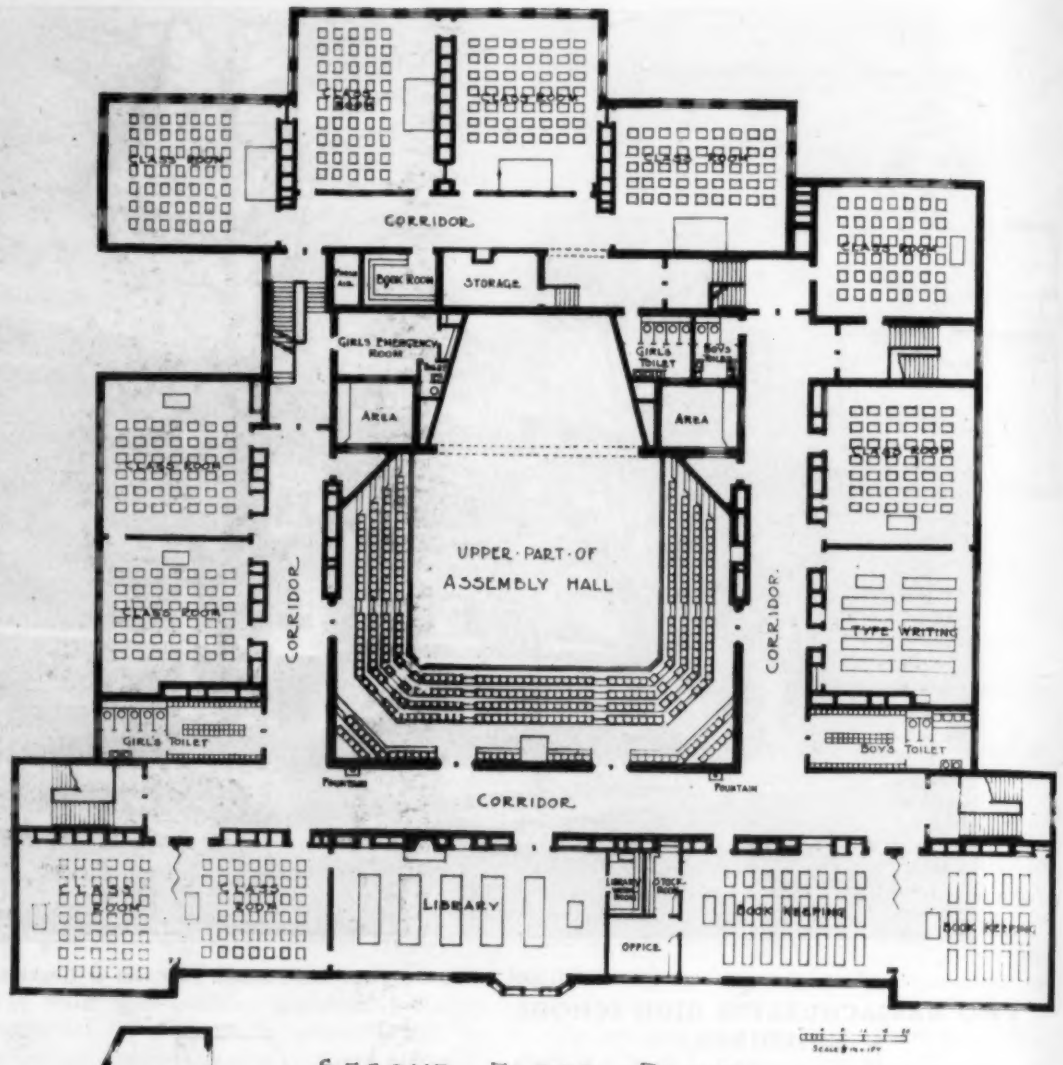
The Milton high school has been planned to meet the needs of a complete metropolitan high school organization. It is two stories high and is as yet incomplete. The plans, however, include provisions for future additions as the student body grows.

A feature of the building is the gymnasium which is practically a separate structure and which includes a large airy gymnasium room entirely above ground and so arranged that it may be used without reference to the balance of the school. As a part of the gymnasium there is a complete series of locker and shower rooms with special offices for the physical directors.

THE OVERSEAS UNIVERSITY.

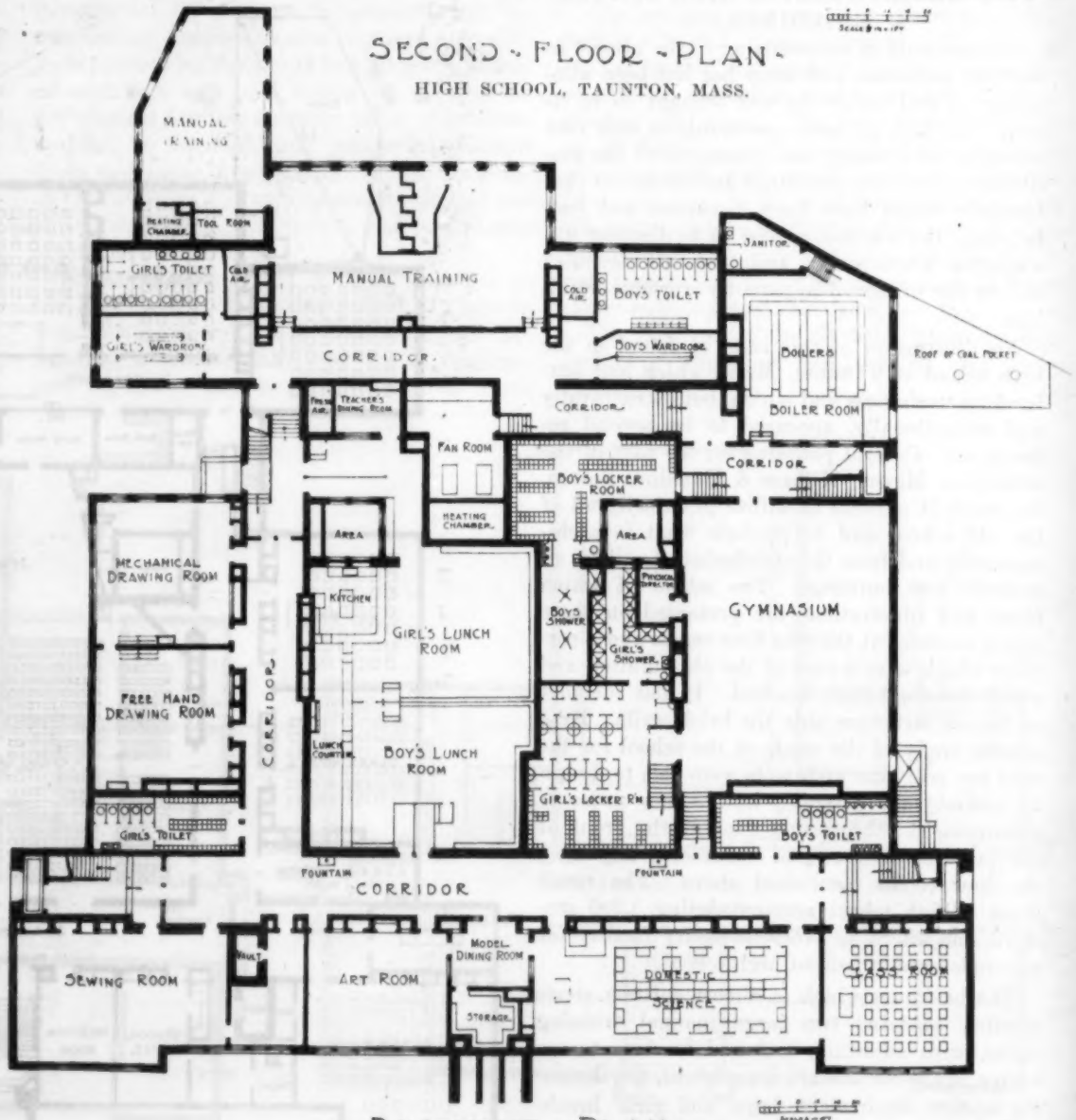
The War Department is at present carrying on an educational enterprise in the American Expeditionary Force which is unique in magnitude, comprehensiveness and in the rapidity with which it has been put into effect. It is a highly diversified and progressive program, providing for the needs of the entire overseas force, and embracing graded courses of study all the way from the elements of reading and writing to advanced scholarship and professional training.

The important bearing of educational activities on the morale of the Army has been recognized from the time of our entrance into the war. At the time of the signing of the armistice plans were already being developed which would have resulted in the creation of educational opportunities for the entire fighting force, with a view to creating an intelligent interest in the purposes of the war, and with a view to making the period of service as little wasteful as possible to the individual soldier. To some extent this plan had already been carried into effect thru the Y. M. C. A. and other welfare organizations. The signing of the armistice at once created both a greater need and a greater opportunity. It removed the greatest incentive to industry and strict observance of military routine and tended to create a spirit of restlessness on the part of the soldier. As the date of discharge was now near at hand, it became necessary to prepare the soldier for a return to civilian pursuits. It was necessary to create in the soldier both the attitude and the condition of preparation that would enable him rapidly to be assimilated into industrial and professional life. While the case of the disabled soldier was provided for by the Reconstruction Division of the Surgeon General's Department and by the Federal Board for Vocational Education, it was evident that it was just as important to "reconstruct" the able-bodied man. This is recognized in a statement made in General Orders 30 published February 13, 1919: "This citizen army must return to the United States prepared



SECOND - FLOOR - PLAN -

HIGH SCHOOL, TAUNTON, MASS.



BASEMENT - PLAN -

HIGH SCHOOL, TAUNTON, MASS.

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to take an active and intelligent part in the future progress of our country."

While the need for educational work was thus increased by the armistice, there was at the same time an enlarged opportunity for carrying it on. It was now practicable both to allot a considerable amount of time and at the same time somewhat to relax the strain and rigor of military routine. As a result there was now opportunity for a consecutive educational program, for intensive application and study on the part of the soldier, and for changes of assignment and organization that would make it possible to group men together in classes and schools. It is to be noted that the same condition did not obtain on this side of the water owing to the rapidity of the demobilization. It was deemed sufficient here to carry on the less systematic and less intensive educational work already provided by the Y. M. C. A., while overseas, on the other hand, there was opportunity and need for a serious educational program, comparable with those conducted in times of peace at regularly established educational institutions.

Development of Plans.

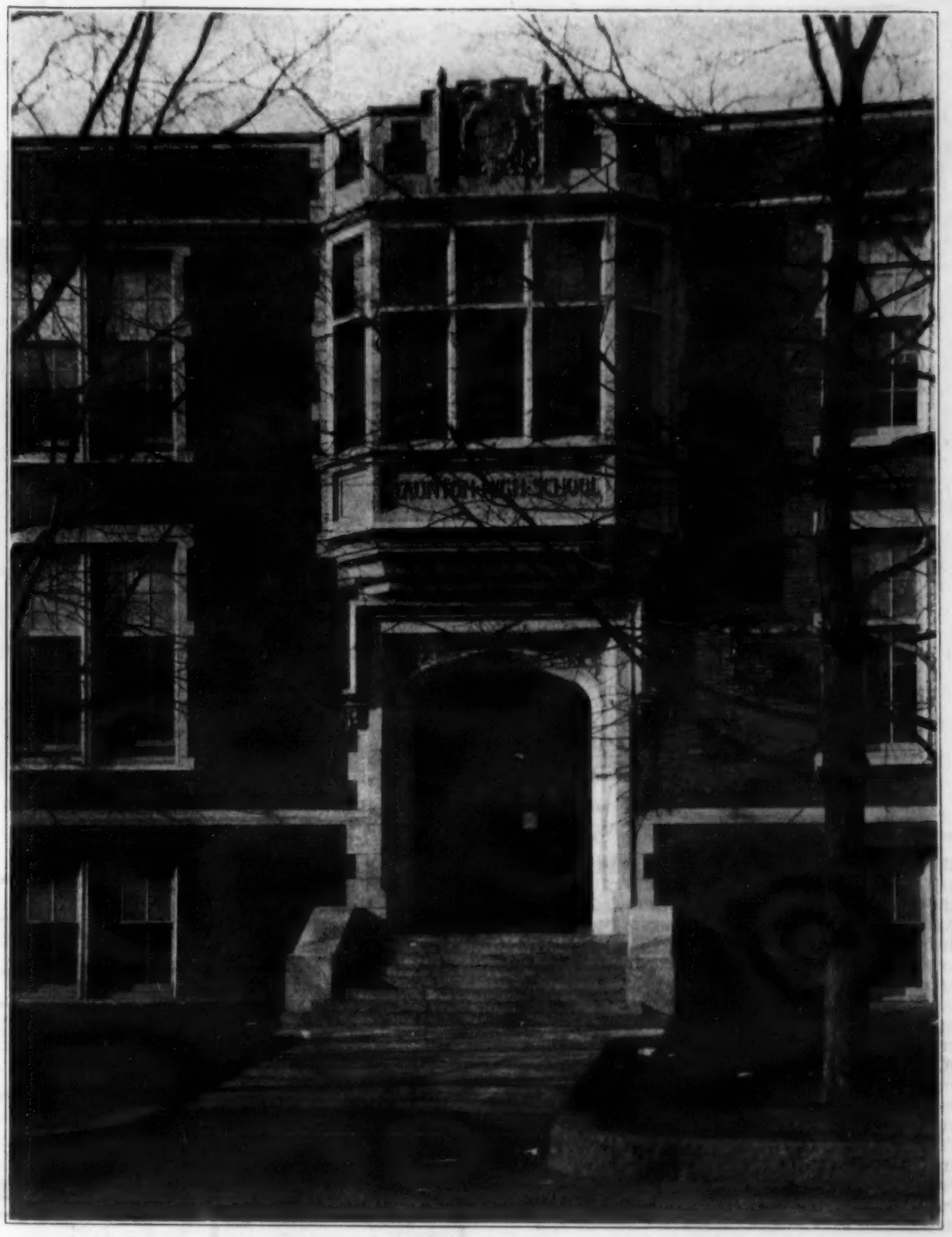
This possibility was foreseen by Anson Phelps Stokes, Secretary of Yale University, who was overseas in connection with the Y. M. C. A. Plans were also submitted independently by the committee on education and special training which had already developed a comprehensive educational organization in connection with the administration of the Students' Army Training Corps. Owing largely to Mr. Stokes's initiative the War Work Council of the Y. M. C. A. appointed an Army Educational Commission to coordinate and supervise educational work with the American Expeditionary Force, and to meet the new conditions created by the armistice and approaching demobilization. Thru this commission steps were taken at once to put an enlarged educational program into effect, and to make use of the expert civilian personnel already on the ground with the Y. M. C. A. Later, on December 11, 1918, Brig. General R. I. Rees, then Chairman of the Army Committee on Education and Special Training, was ordered abroad to supervise the work for the Army and prepare the way for Army control. General Rees had for nine months been associated with Army educational work, and was afterwards on February 14, 1919, awarded a Distinguished Service Medal as a recognition of his success in this field. Shortly after his arrival in France General Rees was attached to the Fifth Section of the General Staff. This Section was under the direction of General Fisk, Assistant Chief of Staff, and had general charge of training and inspection. The Army Educational Commission, consisting of Professor John Erskine of Columbia University, Frank E. Spaulding, Superintendent of Schools of Cleveland, and President Kenyon I. Butterfield of the Massachusetts Agricultural College, thereupon assumed the functions of a civilian advisory board to G-5. As such it remained in charge of methods of instruction, syllabi, textbooks, and other course material, and of expert civilian personnel; and drew upon the general fund of the Y. M. C. A. for directors, lectures, special teachers and the general overhead civilian organization. Approximately $1,000,000 was expended on textbooks, but this cost was eventually assumed by the Government. Finally, on April 16th the complete direction of the work, and full financial responsibility, was assumed by the War Department.

Administrative and Teaching Personnel.

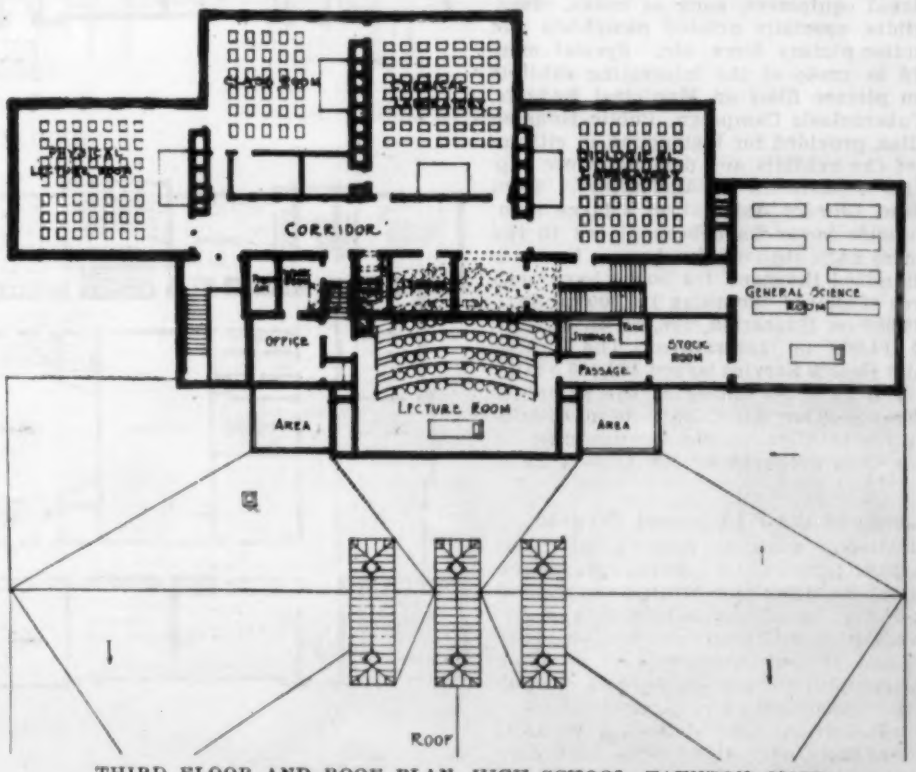
The civilians employed for this work are for the most part educational experts, and are engaged in administrative supervision, teaching of methods, and the preparation of syllabi and courses of study. They also serve as heads of departments in the University at Beaune. There are about 500 civilians so employed, of whom about one-half were already in France as Y. M. C. A. secretaries, the other half consisting of college professors, school superintendents and other educational experts who have been sent abroad since the signing of the armistice.

Every branch of study from elementary school work up to advanced university study is supervised by experienced and competent educational authorities drawn from the ranks of the best teachers, executives and scholars of the country.

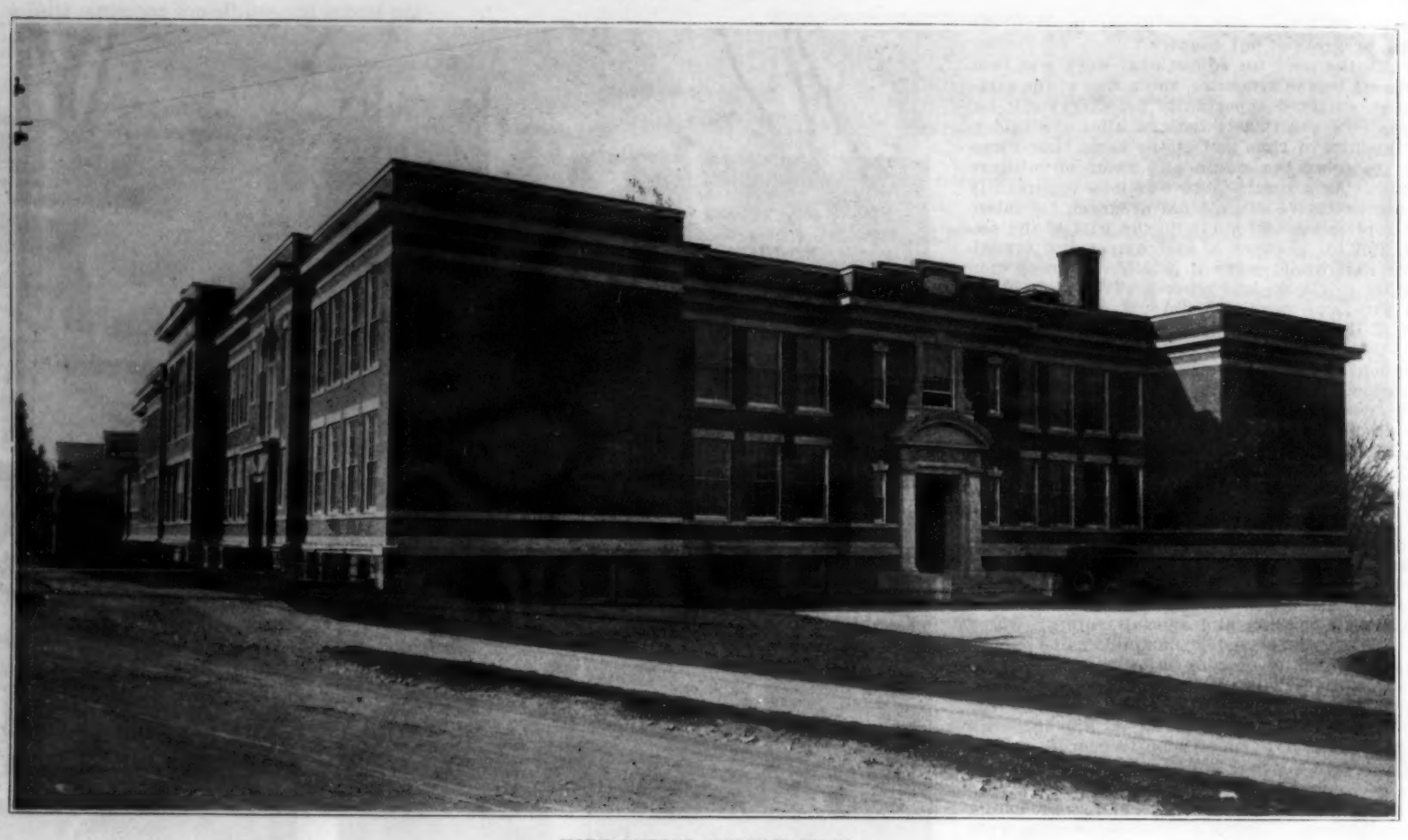
It is a notable fact that nearly all of the actual teachers are drawn from the Army itself, and consist of officers and enlisted men who are freed from their military duties for this purpose, but without affecting their present military status. It has developed that the teaching resources of



DETAIL OF ENTRANCE, HIGH SCHOOL, TAUNTON, MASS. Kilham & Hopkins, Architects, Boston.



THIRD FLOOR AND ROOF PLAN, HIGH SCHOOL, TAUNTON, MASS.
Kilham & Hopkins, Architects, Boston, Mass.



HIGH SCHOOL, MILTON, MASS.
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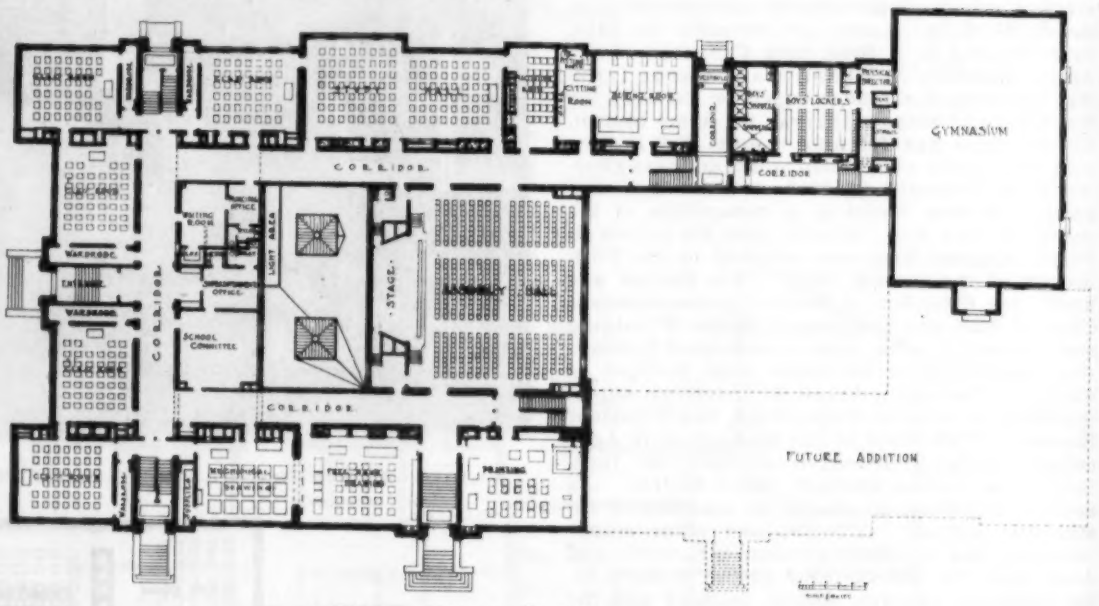
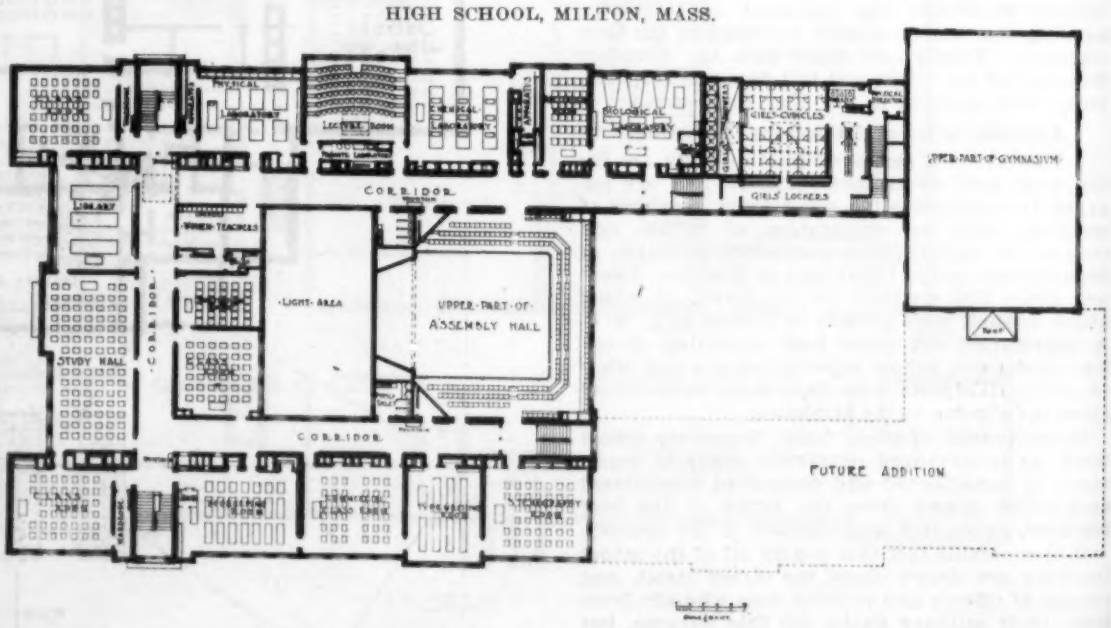


FIRST-FLOOR-PLAN
HIGH SCHOOL, MILTON, MASS.



SECOND-FLOOR-PLAN
HIGH SCHOOL, MILTON, MASS.

the Army are so great as to make it educationally self-contained. A preliminary survey made from the Army personnel records showed that the American Expeditionary Force contained at least 40,000 men who had already had some teaching experience. Two thousand six hundred officers of the Army on duty overseas have been college professors in America or are otherwise suitably equipped to conduct instruction of collegiate grade, covering almost every subject which is offered in the most highly developed modern university. These facts testify both to the militant patriotism of the teachers themselves, and to the high average quality of the personnel of the United States Army. In addition, several hundred French teachers have been supplied by the French Ministry of Public Information, and these teachers have taught French by the "direct method" to over 250,000 American soldiers.

Materials of Instruction.

This educational system requires a large supply of educational equipment, such as books, magazines, exhibits, specially printed pamphlets and syllabi, motion-picture films, etc. Special mention should be made of the interesting exhibits and motion picture films on Municipal Budgets, the Anti-Tuberculosis Campaign, Public Housing and Charities, provided for instruction in citizenship, and of the exhibits and demonstrators supplied by the Department of Agriculture. Thru the American Library Association a large number of reference books have been placed in the huts and mess halls thruout the Army. One million four hundred thousand textbooks have been supplied free of charge, including 195,900 on Agriculture, 106,900 on Education, 106,000 on Government, and 14,000 on Literature. The United States Public Health Service issued 402,000 health pamphlets and 1,000,000 copies of the pamphlet entitled "France—Our Ally" have been distributed among the soldiers. A similar pamphlet on England has been prepared by Mr. Gilbert Chesterton.

Organization of the Educational Program.

The educational work is divided into four parts: 1. Post Schools; 2. Divisional Educational Centers; 3. American Army University at Beaune; 4. Detail of officers and soldiers as students at French and British Universities. Enrollment in any of these organizations is voluntary, but after enrollment attendance is compulsory until the completion of the course.

Post Schools. These are established in units of 500 or more men, with about 40 in each division and 1,000 in the whole American Expeditionary Force. Three hours a day are devoted to in-

VIEW FROM REAR, HIGH SCHOOL, MILTON, MASS. Kilham & Hopkins, Architects, Boston.

struction and study, this being substituted for a corresponding amount of drill. These schools are elementary in scope. There is a special demand for English, French, history, geography, citizenship and mathematics. Great emphasis is placed on citizenship, with special illustrated lectures, and the interesting presentation of concrete facts and problems. There are already about 130,000 soldiers enrolled in these schools, 18,000 of whom are members of the Army of Occupation. Soldiers so enrolled will return with their respective organizations when ordered to the United States.

Divisional Educational Centers. While the Post Schools are elementary in character the Divisional Educational Centers are of secondary or high school grade. The work is organized in each center after a survey has been made in order to determine the subject most in demand. The men are organized in provisional educational companies or detachments conveniently located and provided with an administrative organization. Not more than fifteen per cent of any command may be selected for this instruction. The men spend in instruction and supervised study a minimum of five hours per day, five days of the week, for a period of three months. Drill is reduced to one hour per day. The courses of study fall into

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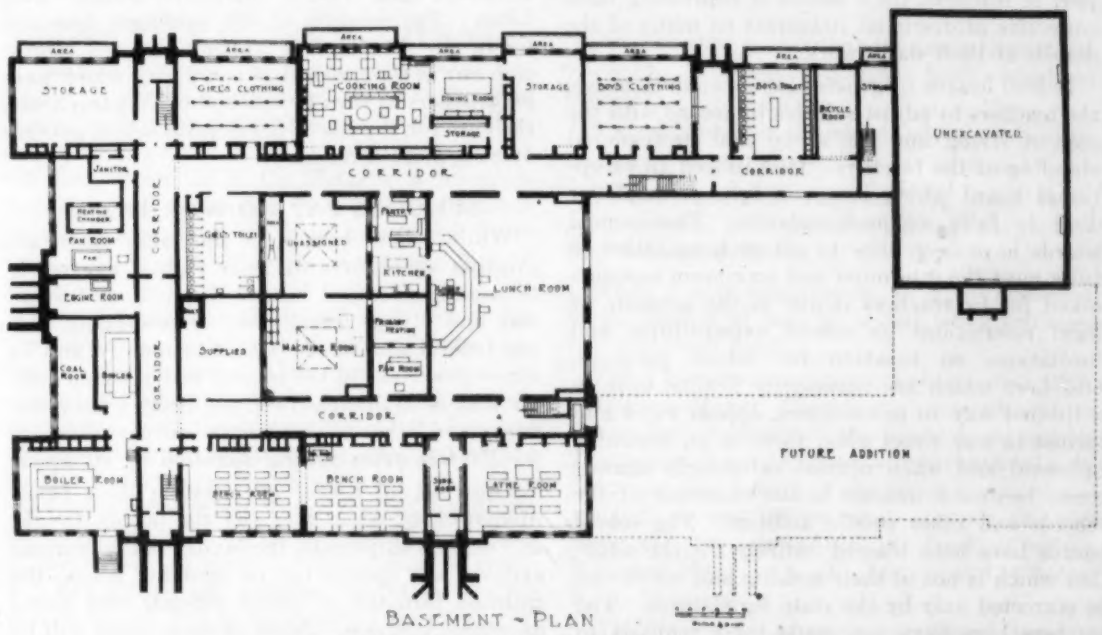

BASEMENT - PLAN

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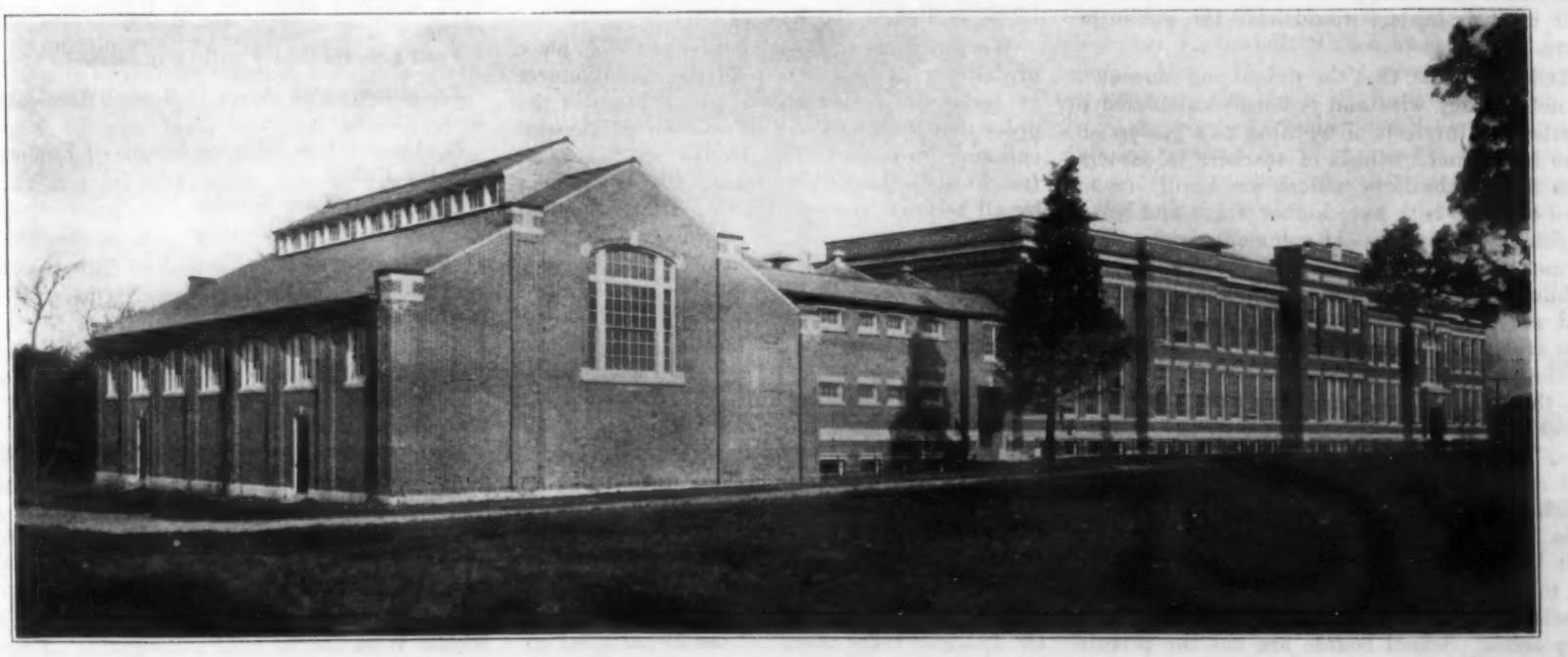


HIGH SCHOOL, MILTON, MASS. Kilham & Hopkins, Architects, Boston, Mass.

THE AMERICAN
School Board Journal
DEVOTED TO
LEGISLATIVE AND EXECUTIVE SCHOOL OFFICIALS
WILLIAM C. BRUCE, Editor

EDITORIAL

UNIONIZING TEACHERS.

School boards in various sections of the country are disturbed by the widespread movement to unionize the teachers. In nearly one hundred communities, the local teachers' associations have joined the American Teachers' Federation which is affiliated with the American Federation of Labor, and in still more cities and towns, the matter is under serious, favorable consideration. The situation is the natural outgrowth of the present low salaries and of the current, growing unrest among all classes of employes. As contributory causes, in the large cities at least, is the prevalent idea that the administration of the schools is not as democratic as it should be. There is too, a desire, on the part of teachers, for a means of expressing their collective professional judgment on many of the details of their daily work.

School boards in general are as anxious as are the teachers to adjust salaries in accord with the cost of living and the social and professional standing of the teachers. It is indeed an exceptional board which is opposed in principle or deed to fully adequate salaries. That school boards have been slow to act or have failed to fully meet the minimum and maximum amounts asked for by teachers is due to the pressure of legal restrictions on school expenditures and limitations on taxation for school purposes. Our laws which are necessarily flexible only in a limited way in peace times, appear rigid and unjust in war times when there is an economic upheaval and when normal safeguards against waste become a menace to the existence of the schools and other public utilities. The school boards have been blamed entirely for the situation which is not of their making and which can be corrected only by the state legislatures. The teachers here have not made their requests to the real court of appeal and have not been as fair as their leaders would have the public believe.

It is our belief that the unionizing movement is not entirely wise and is hardly calculated to further the interests of teaching as a profession. The ideals and methods of teachers in association and of the labor unions are hardly in accord even tho both have higher wages and better working conditions as one common purpose. The former are public servants and are dealing with public officials; the latter are private individuals and are seeking for fair play from employers who are private persons and corporations. While teachers may have a perfect legal right to unionize, they do not have a moral right to ally themselves with one class as against the whole public. They do not have a right to draw themselves and a public institution into an entanglement which may be used for industrial and political ends.

It is well for both school boards and teachers to remember that they do not stand in the relation of employer and employe in the ordinary sense. School boards are not the private bosses of teachers; they are the representatives of the people and they express, or should express, the will of the latter in all their policies and acts. This relationship changes entirely the nature of the relationship which a teachers' union has to a school board as against that which a trade union bears to a private corporation. The antagonism which exists between a union and an employer cannot rightly exist between a teaching corps and a school board. Between the unions and their employers the antagonism is due to the selfishness and greed which underlies the latter's refusal to raise wages, shorten hours, improve the safety, hygiene and generally favorable working conditions. School boards and teachers are both working for the same end—the public welfare as represented in the child—and they cannot rightly maintain a selfish or self-seeking attitude. The unions must resort to forms of coercion, of which the strike is a common manifestation, to gain their ends. Any form of coercion which a union employs is entirely undemocratic when used by teachers against school boards. It loses sight of the principle that the good of all is at stake, and must be conserved as much as the welfare of the teaching force. This is always true unless we are willing to admit that the schools exist primarily for the teaching corps.

School boards will have exceedingly difficult problems to solve within the next five years, if the movement for unionizing teachers continues. However little they may approve, the fact remains that teachers have a perfect legal right to associate, and if they desire, to affiliate with labor. The solution of the problems does not lie in the direction of antagonism and repression but in the removal of conditions which have led teachers to turn to unionism. To paraphrase, the cure for the ills of democratic school government is more democracy.

SCHOOLS PAY NO WAR TAXES.

While school boards in the large cities are availing themselves of their rights, apparently thousands of rural school districts and small city and village schools are unnecessarily paying federal war taxes. Constitutionally, and by direct provision in the several war revenue acts; all states, municipalities, counties, school districts and other governmental subdivisions are *wholly free from federal taxation of all kinds.*

Thus, school boards are wasting their funds unknowingly, when they pay the tax on freight and express shipments, the luxury tax on various articles, the special tax on sporting goods, the railroad fare tax of school officials who travel on school business. None of these taxes will be levied if the proper governmental exemption blank is filed at the time of purchase.

When orders for goods are placed f. o. b. place of delivery, it is well to send the manufacturer or dealer the proper blanks and to state in the order that the goods will be used for public educational purposes. The blanks will save all freight and other federal taxes. Blanks are kept by all internal revenue offices and are supplied on request.

It is possible to recover taxes paid in error by filing claims with the local revenue collector. Philadelphia has received a refund of $1,500 on coal shipments alone during the past winter. While some of the government officials place varying interpretations on the laws and their enforcement, it will be to the advantage of all school boards to confer with the nearest office.

DR. FINEGAN TO PENNSYLVANIA.

Pennsylvania is fortunate indeed in securing Dr. Thomas E. Finegan, for many years Deputy Commissioner of Education for New York State, as Superintendent of Public Instruction. Dr. Finegan takes charge of the Department on June first as successor to the late Nathan C. Schaeffer.

Among the administrators of the United States, Dr. Finegan has won an enviable reputation for a combination of personal and professional qualities and for achievement and experience in school service rarely found in one man. His work in New York State has been monumental, especially in the direction of bringing about constructive reforms in rural schools and in city school administration.

Dr. Finegan is a native of New York State, 52 years old, a graduate of New York State College for Teachers, and holder of several high academic and honorary degrees. He taught in rural schools for six years and held supervisory positions for two years. He then studied law and was admitted to bar but returned to educational work in the State Department of Education. For some years he had charge of the examination work for the department, then the legal work, and in 1908 he was appointed Assistant Commissioner for elementary schools. His duties included the general supervision of all matters relating to elementary education, and the teacher-training work has been under his direction. He has been in complete charge of 207 district superintendents who are in charge of the entire rural education of New York State and he has handled the certification of teachers, the enforcement of compulsory attendance, medical inspection, libraries, etc. Probably his biggest service has been in the direction of legislation intended to obviate evils and to unify and increase the efficiency of the schools. He is the author of the splendid uniform city school law of New York State.

Dr. Finegan has qualities which make him an ideal school executive. He is kindly, warmhearted and generous in his personal relations with teachers and the public. As an official he is firm and positive and clean-cut in his policies and actions. He is of the type that grows under opposition and becomes stronger under abuse. He has the vision and the strength to make the Pennsylvania school system even greater and more efficient than it has been.

THE DEPARTMENT OF SCHOOL ADMINISTRATION.

The Department of School Administration of the National Education Association will meet in Milwaukee, on July 3rd for its twenty-third annual session. The program for the meeting, which has been prepared by the President, Mr. Albert Wunderlich, Commissioner of Schools for St. Paul, offers a wider range of topics than has been the custom in recent years. Mr. Wunderlich's wide experience has been brought to bear with splendid effect as the following outline shows.

Four general topics will be discussed:

1. Music as an Asset to School Administration.
2. Cooperation Between Boards of Education and the Public.
3. Intermediate Schools.
4. Vocational Education.

Each one of the topics will be introduced by means of a ten-minute paper. Music will be treated by Mrs. M. Theresa Finn. Cooperation will be handled by Mr. Wm. L. Pieplow, president of the Milwaukee Board of Education, and The Intermediate School will be discussed by Mr. Wm. B. Ittner, St. Louis.

Each paper will be followed by three five-minute discussions by school board members and leaders in educational work. The purpose will be to offer divergent opinions so as to bring out the widest possible application of the discussion to actual school board conditions.

It is our belief that every school board in the Middle West should send a delegation of mem-

bers to attend the meetings of the Department solely for the direct returns which will accrue to the local schools. We are at the beginning of an important period in the development of American schools and there is need as never before for counsel and cooperation. Radical changes in policy, in the character and scope of the schools, in the form of control and finance, are imminent and unless school boards keep in close contact with the movements and tendencies of the day, they will fail in their duty to their communities and the schools entrusted to them.

The Milwaukee convention is one of the finest opportunities of the year to get in touch and to keep abreast of school progress.

AN ENDOWED SCHOOL SYSTEM.

The city of Winchester, Va., enjoys the unique distinction of being the first community in America to have an endowed system of schools. The city is the beneficiary of a legacy amounting to $1,600,000 to be used for the education of the poor of the city, and the board which has charge of the disbursement of this fund will employ the annual proceeds in bettering the schools of the city.

The board of education will be continued and the people of the city will not be relieved of school taxes. The Handley board, which is the disbursing organization of the legacy fund, will erect suitable school buildings and will pay to the board of education not less than $50,000 annually for the maintenance of the schools.

A survey of the local situation has been made by the General Education Board of New York City and it is proposed to employ the best available expert in school administration as superintendent of schools.

The endowment means literally that the Winchester schools will enjoy the benefit of all that ordinarily could be provided with funds supplied by the taxpayers and that in addition to this, the considerable sum mentioned above will be available for additional school features. The situation suggests wonderful possibilities which will open themselves to American cities if liberal-minded citizens endow the schools.

SUPERVISION AND TEACHERS.

In a recent issue of the Cleveland, O., Plaindealer, a correspondent in discussing "why teachers resign" offers this reason:

"I believe that a large number would be found to have been actuated by a desire to be free from humiliating subordination to superiors (?) who have little or no comprehension of the atmosphere in which our future citizens should be given a vision of the tremendous obligations and opportunities that lie before us as a nation and an inspiration of the high standards necessary to fulfilling those obligations."

It may be questioned whether the reason given is really valid as applied to any great percentage of teachers who leave the profession with a grievance against their associates or superiors. The great mass of teachers accepts supervision as a necessary means of obtaining and maintaining efficiency. They find it a constant source of help and inspiration, a spur to effort and growth in teaching power, and a reliable check against self-sufficiency, stagnation and, to use a slang expression, backsliding.

There is nothing undemocratic about supervision undertaken in the right spirit and applied under normal conditions by men and women who understand their true positions and the democratic purposes of American education. There are, of course, dictatory and arbitrary superintendents and supervisors whose tactlessness and sometimes injustice causes teachers to rebel, but they are more rare than teachers who object to supervision and they rapidly eliminate themselves.

DR. J. STANLEY BROWN.
President-elect Northern Illinois State Normal School, DeKalb, Ill.

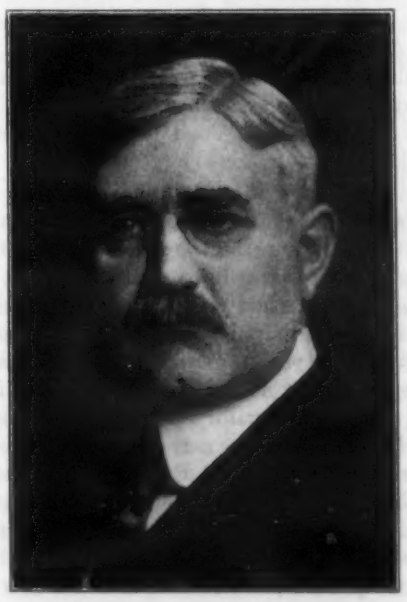
Dr. Brown is most widely known for his leadership in secondary education. He has been superintendent of the Joliet Township High School for many years and has made it the foremost high school in the Middle West. At DeKalb he succeeds Dr. John W. Cook.

It is the common experience that teachers who complain most against their superiors are those who need supervision most because they are the least efficient. Those who resign, invariably have other reasons besides the undemocratic nature of the control over their work.

DON'T TALK TO THE MOTORMAN.

The familiar warning which constitutes our caption is valuable because it prevents the idle, gossipy passenger from distracting the motorman from his chief duty: the safe operation of the car. There is in the warning a principle that may well be applied to the administration of school systems. We may paraphrase it to read: "Don't Bother the Executive School Heads."

It is the business of the school board to lay down general principles and policies for the conduct of the schools. The actual direction of educational affairs is in the hands of the superintendent, and the management of business affairs, building construction, etc., is in the hands of other experienced executives, the business manager, the superintendent of buildings, the accountant, the purchasing agent, etc. Each of these men is chosen for his education, training, experience and general ability, to do his particular job and to do it well. He cannot do it if he is hampered by idle criticism and gossip, by interference and obstruction, by the thousand-and-one devices at the command of busybody school board members.



DR. THOMAS E. FINEGAN,
State Superintendent of Schools for Pennsylvania.

It is an excellent principle in school administration that the initiative in new matters and the full control in matters of ordinary school business shall be in the hands of the executive officers and that veto power alone shall be exercised by members of school boards. Certainly that does not mean that the latter shall not offer helpful criticism, make constructive suggestions and give aid and advice from meeting to meeting—and between meetings—to the school officers. But it does mean that there shall not be any unnecessary meddling or infringement upon the duties of the executive.

"Don't talk to the motorman" is good advice, in places other than electric cars.

THE ALL-YEAR SCHOOL.

The movement for the all-year school derives its opposition from a very small percentage of people in any community. They are the families who can afford a vacation trip to the seashore or the country and tho they may represent less than ten per cent of the pupils in any city school system, their voices carry conviction and their influence has the weight of prominence socially and commercially. The selfishness and unfairness of their protests is doubly wrong because it condemns the children of the poor to idleness in the hot city and closes to them the doors of the only institution which will afford comfort, profitable employment of time and healthful recreation.

Did you ever notice that the most theoretical educator, is frequently the least practical teacher?

A good teacher is not necessarily a good superintendent or principal.

School reports are intended to make facts, achievements, failures, conspicuous. Frequently they conceal all three.

When a man imagines he is above criticism, he is; that is to say, he is lost when criticism will not reach him.

The Chicago common council, on May 26th, confirmed Mayor Thompson's appointment of eleven new members of the board of education. The council's action opens a new chapter in the fight over the control of the Chicago school system. It is not known what attitude the new body will take toward Supt. C. E. Chadsey, Business Manager L. E. Larson and Attorney A. R. Shannon.

The National Association of School Accounting and Business Officials held its eighth annual convention in Cleveland, May 20, 21 and 22. President Thomas R. Mullen of Rochester, presided. About 75 business executives were in attendance. Mr. Henry B. Rose of Providence, R. I., was elected president for the ensuing year and Mr. George F. Womrath of Minneapolis, was chosen secretary. A full report will appear in the July Journal.

The school office that has few seekers must indeed be an insignificant one.

The biggest school jobs do not always contain the most usefulness.

It is easier to get into public life than to stay there.

When theory and practice crowd one another see that neither is forced out.

THE DEPARTMENT OF SUPERINTENDENCE.

The Department of Superintendence of the N. E. A. will meet in Cleveland, February 24 to March 1, 1920. The Hotel Cleveland will be headquarters.

ISSUANCE OF SCHOOL BONDS

Harry R. Trusler, Dean, College of Law, University of Florida

School districts have such power, and such only, as is conferred upon them by statute to issue bonds for school purposes (95 S. W. 438; 17 N. W. 191; 53 S. E. 524; 33 Pac. 654; 74 Pac. 110; 33 Atl. 923). The officers of a school district have no power to issue bonds except in the form and manner provided by statute, and they cannot circumvent the law by issuing warrants and selling them and investing the proceeds (74 Pac. 110; 95 S. W. 438).

Bonds issued by a city school for the purpose of building a dormitory and boarding house are illegal, and taxes to pay the interest on them may be enjoined, since such buildings are in no sense necessary or proper for a public free school (68 Ill. 530). Likewise the issuance of bonds by a school district for the purpose of providing an agricultural farm is void, altho the constitution authorizes "additional support to public schools" and a statute requires the principles of agriculture to be taught in the public schools, because the "principles" intended is not the practical part of such science, but its theoretical part, and any other construction would authorize the establishment and operation of a farm for instruction in horticulture, or a model home for instruction in home economy, or a zoo for instruction in zoology (76 So. 585).

In suits for an injunction against the issuance of school bonds the trustees cannot consent to the entry of a decree amounting to a fraud upon the district. Thus, where in a pending suit a majority of the board stipulated personally with the plaintiff that judgment should be entered in his favor and on such agreement, without evidence or findings, the court ordered judgment accordingly, it was held on appeal that no judgment was permissible on such collusive, illegal, and void stipulation (117 N. W. 866).

A purchaser of school bonds is bound to see whether authority to issue them exists (94 Ill. 528), and is charged with notice of limitations on the power of the district to become indebted (66 N. W. 89), and of the financial condition of the district, so far as it affects the validity of the bonds (25 Fed. 635). To recover thereon, he must prove that all the steps necessary to their issuance have been taken, whether or not the bonds recite that they have been (45 Mo. App. 660). Where, to illustrate, a petition is required by statute to state the purpose for which the school bonds are to be issued and the petition says that they are "to build a new public school building," but the election is held to vote on bonds "for building and furnishing a new schoolhouse" the bonds are invalid. This is because the purpose of the statute is not complied with, as voters may favor bonds for a new building but not for new furniture (130 N. W. 1050). If the proper school officer, however, has filed a statement as required by statute, showing that all the statutory requirements have been complied with, the district is not allowed to deny it (13 Pa. Dist. 769). Likewise if a bond in the hands of a bona fide purchaser recites that it was issued according to law and by vote, the district is estopped to deny it (1 Ill. App. 193; 81 N. W. 952; 78 Fed. 750). But if a bond recites that it was issued for a specific purpose as authorized by statute and the statute does not so authorize (20 N. W. 209), or it was issued and used for an unauthorized purpose (117 N. W. 866), its validity may be denied by the district.

Under some statutes a school bond election can be called only upon the petition of a certain number of the voters of the district (35 Cyc. 992). Hence the question of the time within which a petitioner may withdraw his name from the petition may become important. Considering this subject the Supreme Court of Kansas recently has said: "In some cases it has been held that withdrawals may only be made while a petition is in circulation, and before it has been filed or presented for action. Some hold that withdrawals may be made until the petition has been filed and jurisdiction has attached, but that withdrawals will not be allowed which would defeat jurisdiction. A greater number of the authorities apply a more liberal rule, which permits a petitioner to withdraw his name at any time before final action is taken upon the petition by the officer, board or tribunal to which it is presented. In a number of the cases the right of withdrawal is regulated by statutory enactment" (129 Pac. 176).

School bonds issued without statutory authority, or for an unauthorized purpose, are void, even in the hands of innocent purchasers (94 Ill. 528; 48 N. W. 146; 92 N. W. 439). They cannot be validated by a vote of the people of the district authorizing them to be issued, where the law does not authorize such a vote (56 Fed. 197, 5 C. C. A. 468). But they may be ratified and rendered valid by an act of the legislature (57 N. E. 920; 92 N. W. 439). And according to some courts, notwithstanding the fact that the bonds on which a loan to a school district is made are void, if the money is advanced in good faith and is used by the district for school purposes not *ultra vires*, the district is under a legal obligation to refund the money so advanced. This liability it is said, springs from the moral duty to make restitution (40 Pac. 698; 111 Fed. 682; 49 C. C. A. 539). Since mere irregularities or informalities do not render school bonds unenforceable, it has been held that, when properly issued, they are not invalidated by necessary delay in issuing them after they are authorized (39 Pac. 879); or by their issuance for a less amount than has been authorized; or by the failure to provide a sinking fund for their payment; or by the levy of a tax for interest in excess of the amount required to pay the interest on the bonds (78 Mo. App. 442). Clearly the right of a holder of school bonds to recover on them cannot be defeated because of a misapplication of the proceeds of the sale of such bonds (42 Fed. 644; 68 Ill. 530).

It is necessary that it shall clearly appear on the face of the proceedings for the issuance of school bonds that they are issued only for the purpose authorized by statute (33 Atl. 923). While a city, when authorized by its charter, may issue municipal bonds for school purposes (31 Atl. 695, yet its power to do so is not exclusive and the school district, embracing the city and the territory attached thereto for school purposes, also may issue district school bonds (83 Pac. 246; 83 Pac. 248). Indeed, the establishment of a public school system and the exercise of the taxing power for its maintenance is at the same time a state, a county, and a municipal purpose, and a state is not a "company, association, or corporation" within the meaning of a constitutional provision prohibiting a county or city lending them credit (130 S. W. 1057). Bonds issued by a *de facto* board of education, within the powers granted to a board legally organized, are binding on the district in the hands of bona fide purchasers (62 Fed. 778; 10 C. C. A. 637; 55 N. W. 586). It has been held that the power to issue school bonds may be implied from a statute authorizing school districts to borrow money (13 Neb. 82; 15 N. W. 730); but by the better holding such is not the case (56 Fed. 197; 91 Ill. 402). Obviously, however, express authority granted to school boards to issue bonds bearing interest carries with it power to issue interest coupons attached to the bonds (148 U. S. 591). Where school bonds are by law negotiable, the fact that they were issued and delivered to the purchaser without requiring payment by him does not affect their validity in the hands of a subsequent bona fide holder in due course, and the coupons are entitled to the same immunity as are the bonds of which they were originally a part (85 Atl. 235).

Altho the law empowers a district to issue bonds to pay for sites for schoolhouses, to erect buildings thereon and to furnish the same, it has no authority to *barter* such bonds to a contractor for the erection and furnishing of a schoolhouse; and, notwithstanding recitals on the face of the bonds that they are to pay for the site for a schoolhouse, to erect buildings thereon and to furnish the same, the district is not estopped to deny their legality in the hands of a bona fide purchaser before maturity. The reason for this decision is thus stated by the court: "When money is actually borrowed and received into the school-district treasury, the contract for the erection of a schoolhouse may always be let at a reasonable cash price after a fair competition among the contractors and builders of the vicinity; but when there is no money in the treasury, but the building is to be paid for in bonds, then the competition is confined to those persons of the neighborhood who combine the character of contractor and builder with that of capitalist or stock-broker, and so, in the latter case, it is not only improbable, but well-nigh impossible, that the same quality of building could be procured as economically as in the former" (20 N. W. 209; accord. 48 N. W. 146). Yet it has been held that authority to borrow money for the purpose of building schoolhouses, or purchasing school sites, embraces the power to exchange school bonds for a site having a schoolhouse already erected on it. Here the court said: "The suggestion made that property may be bought at better advantage with cash than with bonds, we cannot judicially recognize as of sufficient force as not to allow the giving of the bonds directly, in payment for the purchase of the lots" (98 Ill. 335). This decision, it is submitted, is not necessarily in conflict with the holding that bonds cannot be bartered to contractors for the erection and furnishing of school buildings.

The power to issue school bonds often is given upon condition that a vote of the electors of the district is necessary to authorize the issue and define its purposes (36 Pac. 396; 29 N. E. 312; 38 Pac. 462; 21 S. W. 901; 45 Mo. App. 660; 17 Minn. 412; 98 Ill. 335). If the election is not legally called the bonds issued in pursuance of a vote are invalid, even in the hands of a bona fide purchaser for value (7 N. W. 315; 35 Cyc. 990), and the sale of them will be enjoined (38 Pac. 462; 64 Pac. 324), unless every voter of the district attended the election and voted

Editor's Note—The abbreviations of states within parentheses in this article refer to state reports. Other abbreviations used are: Am. Dec.—American Decisions; Am. Rep.—American Reports; Am. St. Rep.—American State Reports; Atl.—Atlantic Reporter; Cyc.—Cyclopaedia of Law; L. R. A.—Lawyers' Reports Annotated; L. R. A. N. S.—Lawyers' Reports Annotated New Series; N. E.—Northeastern Reporter; N. W.—Northwestern Reporter; Pac.—Pacific Reporter; So.—Southern Reporter; S. E. Southeastern Reporter; S. W.—Southwestern Reporter.

(14 N. W. 382). But an election otherwise legal and authorizing school bonds will not be invalidated because certain persons erroneously were excluded as electors (97 S. W. 408), or permitted to participate (142 Pac. 1034), where the error could not possibly have changed the result. By a majority vote necessary to the issue of bonds is meant, according to the decided weight of authority, a majority of all the voters voting (29 N. E. 312; Note, 6 L. R. A. 308), not a majority of all the qualified electors of the district (28 So. 764), altho there are cases to the contrary (72 N. C. 486; 50 Miss. 735; 67 Mo. 331).

An election is not invalid because the directors repeatedly called elections until the consent of the electors to a bond issue was obtained. "Such action," said the court, "might perhaps sustain proceedings to prevent an election. The ground for a court's interference to prevent an election, under such circumstances if it exist at all, must be, not the malicious action of the directors in repeatedly calling new elections immediately after defeat in former ones, but the reckless and fruitless expenditure of the funds of the district in the proposed holding of an election where the same proposition has been recently and repeatedly defeated. But when the election has been held, and the proposition is carried, any such cause of intervention has ceased to have weight, because the expenditure has been made, and the election has not been fruitless" (30 Pac. 142). A second election to vote bonds for the construction of a schoolhouse may be ordered without a new petition when the first election was invalid for insufficient notice, since the original petition creates a duty on the part of the proper officials to call an election which continues until a valid election is held (158 Pac. 1110).

Authority to issue school bonds carries with it the power to sell them (17 Minn. 412); but without statutory permission they cannot be sold for less than their par value (82 Ill. 132). Statutes usually provide that they shall be disposed of for not less than a specified price (75 Mo. 408) and for cash (66 N. E. 1113). It has been held that a statute prohibiting the sale of bonds for less than ninety cents on the dollar is not violated where the bonds are sold for that price, but the purchaser deducts one per cent as his commission on the sale (75 Mo. 408). Where it is provided that the bonds shall be sold after advertisement to the highest and best bidder (68 Pac. 875), they are not disposed of until such bid is accepted and the district is not liable for damages for refusing to accept it (46 Mo. App. 6).

It has been held in Missouri and the federal courts that where a school district issues bonds in excess of its debt limit, they are wholly void and cannot be held good for an amount within such limit. "This is an action at law," said the court, "and the plaintiff must stand or fall on the question of the validity of the contract" (75 S. W. 81; 77 Fed. 277; 142 U. S. 366). In Kentucky and Michigan, however, it has been held that an issue of school bonds in excess of the amount allowed by law is void as to the excess only (137 S. W. 839; 10 N. W. 349), and this holding, it is submitted, is preferable and is in harmony with the cases holding that a contract for material used in a school building in excess of the district's debt limit is not void but is enforceable up to such limit (58 L. R. A. 100; 50 N. E. 81; 18 N. E. 781; 10 N. W. 349; 157 N. W. 54). It is clear, however, that an anticipated issuance of school bonds in excess of the district's debt limit may be enjoined (30 N. W. 495; 31 N. E. 561; 113 S. W. 521). In determining a school's debt limit, the district must be considered as a corporation distinct from a municipality with which its territory coincides (57 N. E. 920); and where the bond indebtedness of a district is limited to a certain per cent of its assessed valuation, the last completed assessment is meant, altho taxes have not been levied thereon (94 Fed. 324; 81 N. W. 952; 89 N. W. 480).

RESOURCES AND TAX RATES OF MICHIGAN CITIES WHICH ARE UNDERTAKING SCHOOL BUILDING OPERATIONS.

Name	Tax Rate School	Tax Rate Total	Bonded Indebt. No. $1,000 School	Bonded Indebt. No. $1,000 City	Assessed Valuation	Total Enrollment	Population	Rank
Adrian	5.57	19.03	30	127	12,107,060	1,900	12,000	52
Albion	11.65	23.00	71	....	6,235,000	1,583	10,000	10
Allegan	8.56	25.20	....	59	2,229,000	1,027	4,500	27
Alma	11.34	32.00	90	190	5,757,595	1,800	7,500	11
Alpena	4.60	28.90	....	288	7,845,000	1,500	13,000	59
Ann Arbor	6.19	18.73	200	785	30,018,120	3,168	16,000	48
Benton Harbor	7.10	23.57	72	....	13,000,000	2,693	15,000	41
Bessemer	1.50	3.85	199	173	6,000,000	1,486	6,000	63
Big Rapids	7.45	23.50	....	....	3,490,610	761	4,900	38
Cadillac	7.90	27.40	76	107	9,775,050	2,186	10,000	35
Charlotte	7.75	27.70	25	23	3,823,095	1,100	5,000	37
Crystal Falls	12.50	34.08	180	118	8,850,779	1,897	6,800	8
Dollar Bay	13.00	22.60	75	....	6,462,988	1,853	8,500	5
DOWAGIAC	9.35	30.04	0	120	4,795,538	1,328	6,100	22
Escanaba	9.14	35.15	106	575	7,970,295	2,737	16,000	25
Fremont	17.40	42.30	6½	6	1,219,035	590	2,009	3
Gladstone	12.70	35.80	20	120	2,000,000	1,000	5,500	7
Grand Haven	7.93	24.50	30	50	5,285,435	1,500	8,000	34
Grand Rapids	6.03	18.83	1324	3570	180,457,198	19,593	135,000	50
Greenland	3.75	8.88	40	....	1,250,000	1,017	6,000	62
Greenville	10.14	38.00	51½	....	2,849,668	892	4,500	16
Gwinn	9.90	19.80	20	....	2,943,010	.....	2,500	19
Hartford	9.50	20.29	....	....	1,060,125	345	1,500	20
Hastings	12.87	28.78	93	51	3,744,500	975	5,000	6
Highland Park	4.95	12.77	2000	2791	130,000,000	7,000	40,000	57
Holland	5.87	21.26	126	238	11,451,639	2,400	12,000	51
Houghton	12.37	22.92	100	180	8,717,500	2,250	9,599	9
Howell	9.00	33.11	....	89½	2,255,690	700	3,300	26
Ionia	10.32	.....	....	....	.....	1,200	.....	14
Iron Mountain	17.60	41.23	80	....	5,692,643	2,500	10,000	2
Jackson	6.76	29.00	645	1000	44,000,000	7,000	50,000	44
Lansing	4.18	22.89	40	455	50,000,000	9,168	50,000	60
Ludington	6.25	27.36	....	....	6,500,000	1,510	9,131	47
Manistee	6.71	27.47	3	215	8,544,905	1,600	12,000	46
Marine City	10.30	.....	....	....	1,900,000	700	4,000	15
Menominee	10.00	31.90	150	332½	9,000,000	2,000	12,000	17
Monroe	6.98	25.37	132	110	10,880,000	1,250	12,000	42
Mt. Clemens	6.72	18.16	54	161	12,889,130	1,500	10,000	45
Mt. Pleasant	8.40	21.90	12	40	4,173,840	762	5,000	29
Munising	6.76	30.42	6	82	6,669,500	659	5,000	43
Muskegon	8.25	26.50	266	978	25,060,402	5,571	40,000	31
Muskegon Heights	9.28	29.00	47	220	5,647,599	1,765	11,000	24
Negaunee	3.84	19.66	34	62	17,948,295	1,714	9,000	61
Niles	8.00	25.00	77	....	5,132,100	1,400	7,000	33
Onaway	20.40	48.30	28	31½	1,446,025	600	2,750	1
Otsego	5.42	18.10	15	....	3,700,000	735	3,000	53
Owosso	7.32	26.84	45	403½	8,500,000	2,250	10,000	39
Paw Paw	10.93	36.48	9	85	1,285,150	400	1,400	12
Petoskey	9.34	27.21	80	141½	5,227,000	1,050	5,000	23
Port Huron	6.15	25.81	226	802	19,372,365	3,442	25,000	49
River Rouge	5.10	23.40	145	412	8,800,000	1,000	8,500	55
Rochester	7.12	24.00	15	22	2,500,000	625	3,000	40
Royal Oak	9.38	37.37	135	51	5,350,000	1,130	7,000	21
S. Ste. Marie	8.05	23.85	150	605	15,650,000	450	14,000	32
St. Clair	5.18	24.00	....	100	3,000,000	517	3,000	54
St. Clair Hgts	5.00	16.80	268	....	10,000,000	1,800	1,200	56
St. Johns	10.40	30.11	12	50	2,731,024	874	3,900	13
St. Louis	9.95	31.50	8	75	1,950,000	718	3,000	18
Sturgis	8.30	22.80	138	225	4,792,975	1,300	6,300	30
Tecumseh	14.70	32.50	95	40	2,296,200	500	2,300	4
T. Rivers	7.82	27.14	50	116½	4,126,470	1,100	5,800	36
Traverse City	8.48	27.97	30	350	7,756,420	1,900	12,500	28
Watervliet	4.65	15.73	....	27	1,600,000	354	1,200	58

PROSPECTIVE SCHOOL BUILDING IN MICHIGAN

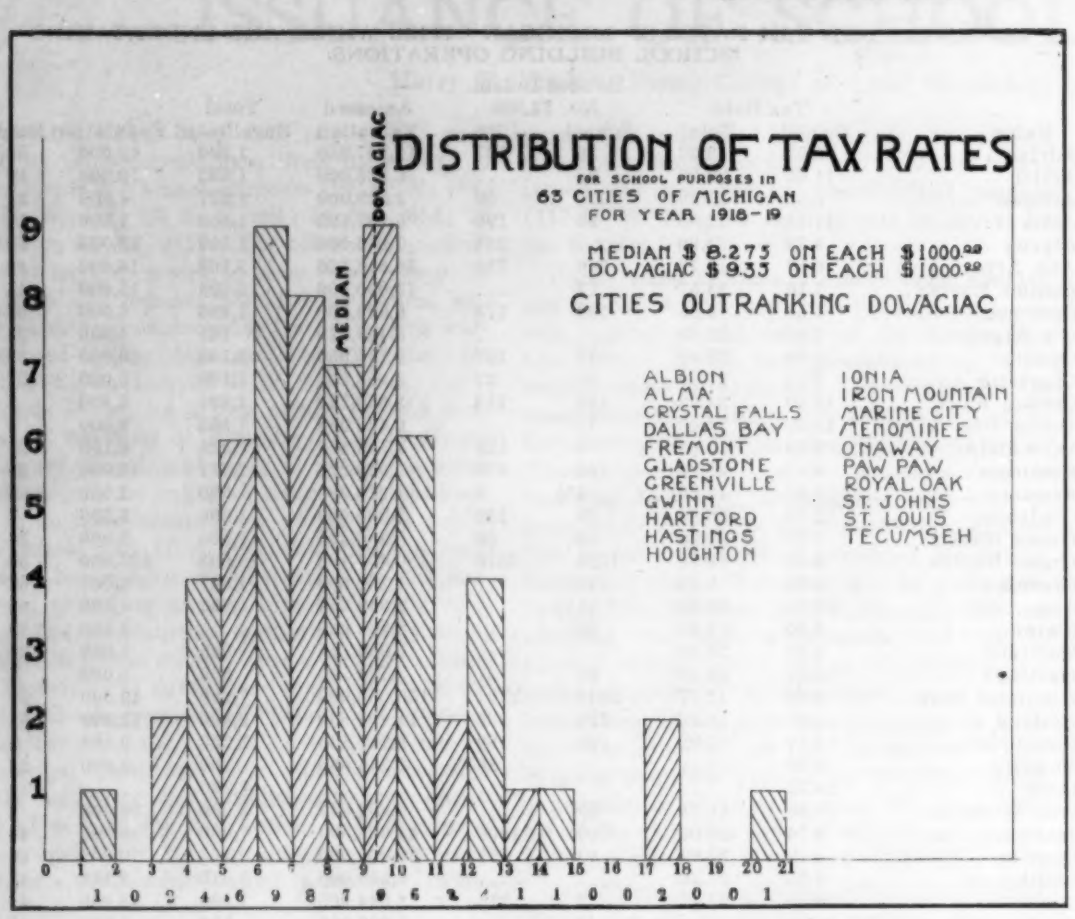
A. F. Frazee, Superintendent of Schools, Dowagiac

Michigan is approaching a Renaissance in public school building. Plans for meeting urgent school needs, long delayed because of the war, are now being brought to fruition in the shape of voted bond issues all over the state. And most communities apparently expect to proceed at once to build without further delay in hope of declining prices.

In a recent questionnaire mailed to some hundred cities and villages in the state, 63 reported with promptness, and of that number 27 are planning to build at least within the next two years.

The cities indicating intentions to build within the next two years were: Allegan, Alma, Benton Harbor, Big Rapids, Dowagiac, Grand Haven, Grand Rapids, Highland Park, Howell, Kalamazoo, Lansing, Ludington, Marine City, Monroe, Mt. Pleasant, Muskegon Heights, Niles, Owosso, Paw Paw, River Rouge, Royal Oak, St. Clair, St. Johns, Three Rivers, Watervliet, and Wyandotte. A number of the cities have already voted their bond issues, some have purchased sites, and all are getting ready for early action. It is fair to say that the per cent building is nearly typical of what would be obtained if all cities and villages were canvassed. Michigan will build schoolhouses in earnest during the next two years.

A comparison, therefore, of the resources of a representative group of cities is both pertinent and interesting. In the recent study referred to



School Taxation in 63 Michigan Towns.

above, a wide distribution of tax rates ranged all the way from $1.50 on $1,000 assessed valuation in Bessemer to $20.40 on $1,000 assessed valuation at Onaway. Ranked upon the basis of financial effort put forth, the latter town would be first in the list of sixty-three reporting, and Bessemer would be last. More diagramatically expressed, we find by the accompanying graph that the median town has a tax rate of $8.275 on each $1,000 of assessed valuation, including the one mill tax.

Many other interesting features appear which indicate the varying ability to finance a school building program. To summarize the material most satisfactorily a tabulation has been made. The following data was compiled from answers given by sixty-three schools in answer to the following questions in a questionnaire mailed out March 7, 1919:

1. What is your tax rate for school purposes including the one mill tax for 1918-1919?
2. What is the total tax rate for all purposes paid by your community?
3. What is your present school bonded indebtedness?
4. What is the total bonded indebtedness of the city for other than school purposes?
5. Assessed valuation of school district?
6. Total enrollment in school?
7. Population?

A BASIC CHANGE OF THE EDUCATIONAL SYSTEM OF MINNESOTA.

Minnesota has by an act of the legislature during the closing days of this year's session unified the administration of its public school system. Prior to the enactment of this law, the administration of its public schools was lodged partly with the state high school board and partly with the state superintendent of education. The latter was appointed by the governor for a term of four years. The members of the high school board were also apointed by the governor with the exception of the president of the State University, who was a member ex-officio and who is elected to his position by the board of regents of the University.

The new law embodies a plan of organization which has had the full support of the present state department of education. State Superintendent James M. McConnell has been accorded a notable recognition of his ability as an organizer and administrator in securing the passage of this bill. Considering the fact that he went into office after the legislature had been organized, the achievement is all the more creditable, as it indicates the quality of educational leadership of which he is capable.

The new law vests all powers of the state high school board, the State library commission, and the state superintendent of education in a state Board of Education composed of five members, appointed by the governor for a term of five years. This board has full administrative control of all public schools, and in case of apparent conflict of authority, the presumption is, according to the terms of the law, that this board shall exercise all of its powers, duties and functions regardless of such conflicting claims. The members of the board are to serve without salary, but will be paid a per diem of ten dollars, and in addition thereto all necessary expenses incurred in the performance of their duties.

The election of the head of the state educational department is vested in this board. He is hereafter to be known as "Commissioner of Education" and also becomes the secretary of the state board of education. The organization outlined by law provides for a deputy commissioner of education and sixteen heads of departments or assistants, who are nominated by the commissioner of education and approved by the board. The term of office of the commissioner is six years and his salary is fixed at $5,000 per annum.

The new state board is specifically charged with the duty of investigating the distribution of state aid and recommending to the governor such changes as will bring about a more equitable apportionment of such aid. The recommendations are to be submitted to the next legislature. To the board is also assigned the task of modifying and unifying the laws in regard to public education so as to make them "more readily understood and more effective in execution." The budget system of financial needs and requirements is also made obligatory by this law.

The state board of education, by virtue of succeeding to the powers and duties of the high school board, becomes also the state board for vocational education, and will direct the activities in the state under the Smith-Hughes act.

Minnesota is to be congratulated upon this change in its educational administration. It is the logical outcome of a well-directed effort for efficient educational control.

The first State Board of Education for Minnesota, appointed by the governor, consists of George B. Aiton of Grand Rapids, Julius Boraas of Northfield, Thomas E. Cashman of Owatonna, W. D. Willard of Mankato and Mrs. R. G. Musser of Little Falls. Mr. Aiton becomes the first president of the board by virtue of the fact that the law provides that the member whose term first expires shall be the incumbent of that office. Mr. Aiton has been identified with educational activities of the state since 1893. He was at that time appointed as the first high school inspector in the state and served in that capacity until he resigned in 1915. Since that time he has been a member of the state high school board, which is now superseded by the state board of education. Mr. Boraas is professor of education at St. Olaf College. He was for many years county superintendent of schools of Goodhue County, Minnesota. Mr. Willard was chairman of the Education Commission which made a report to the governor in 1915 on the reorganization of the school system. Mr. Thomas E. Cashman has been a state senator and recently a member of the State Safety Commission. Mrs. Musser has been actively identified with the child welfare movement in the state.

SCHOOL LAW

Under the Illinois constitution, art. 8, ¶ 1, requiring the general assembly to provide an efficient system of free schools which is a mandate to the legislature, the high school is as much a part of the school system as the grade or district schools.—People v. Chicago & N. W. Ry. Co., 121 N. E. 731; Same v. Cleveland, C., C. & St. L. Ry. Co., Id. 737; Same v. Wabash Ry. Co., Ill.

Under the New York constitution, art 9, ¶ 1, the public schools are operated under a state system, and while local municipal authorities aid in the administration and control of city schools, they remain state institutions, and such authorities cannot divert school money from its intended purpose.—Hylan v. Finegan, 174 N. Y. S. 45, N. Y. Sup.

The acts of the 34th legislature of Texas, c. 36, ¶ 4a (Vernon's annotated civil statutes, supp. 1918, art. 2749d), does not give district courts supervisory control of management or abolition of elementary schools within established districts, nor of establishment or maintenance of rural high schools; such duties, under the law, resting on district school trustees, with successive appeals to county trustees, to state superintendent of public instruction, and to state board of education.—Schulz v. Davis, 207 S. W. 634, Tex. Civ. App.

School Districts.

The New York education law, as amended by the laws of 1917, c. 328, providing for the consolidation of school districts of a town and the transfer of the property of the districts to consolidated district, and the assumption of the indebtedness of the districts by the consolidated district, was not unconstitutional as taking property without due process of law, in violation of the U. S. constitutional amendment 14, ¶ 1, and the New York constitution, art. 1, ¶ 6.—Wadsworth v. Menzie, 173 N. Y. S. 620, N. Y. Sup.

MR. BROWN ELECTED.

Mr. James Stanley Brown, for many years principal of the Joliet Township High School, has been elected president of the Northern Illinois State Normal School at De Kalb to succeed Dr. John W. Cook. Mr. Brown will enter upon his new duties in September.

Mr. Brown is widely known thruout the United States as a leader in secondary education and has advocated all progressive secondary school methods. He was born in Cumberland in 1863 and holds academic degrees from Denison University and the University of Chicago. He has been successively a teacher and principal and has held executive positions in Arlington College and in the Oregon State Normal School. He has been a prominent figure for many years in the National Education Association as a member of the Council of Education and as a member of the Board of Trustees. He is a familiar figure on the educational lecture platform and has addressed educational conventions in all sections of the country.

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With an intimate knowledge of the needs of the schools the Victor Talking Machine Company has studied deeply that it might offer an infinite variety of service to the Educators of the country by furnishing material especially adapted to the various needs and developing mental, emotional, and physical activities of the pupil. Every Victor Record for school use is carefully made and specially selected. For instance:

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The Maypole Dance comes down to us as an ancient English custom dating back to the time of the Druids, by whom it was used as a religious ceremony invoking a blessing on the sowing and planting of the summer crops. Sellenger's Round was old in the time of Queen Elizabeth and was arranged for her by Playford for her Virginal. Every figure of the dance has a significance.

Victor Record 18010.

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For the best of reasons. The song was sung by Queen Titania's fairy handmaidens dancing about her woodland couch, soothing her with a lullaby and asking safety from encroachments by the denizens of the forest.

Victor Record 55060-A.

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Victor Records 35670 and 35671.

Why a duet of a man and a woman in "Tell Me Where is Fancy Bred"?

Forsooth because in the Casket scene in the "Merchant of Venice," a careful study of the text and the context shows that the song was sung by Nerissa and Gratiano, while Portia breathlessly watches Bassanio as he chooses the leaden casket.

Victor Record 55060-B.

Fully possible only with the Victor in the Schools.

Write for a copy of "Graded List" which describes the Victor Educational Records.

For full information, write

Educational Department

Victor Talking Machine Co.
Camden, N. J.

Victrola XXV, $90 especially manufactured for School use

When the Victrola is not in use, the horn can be placed under the instrument safe and secure from danger, and the cabinet can be locked to protect it from dust and promiscuous use by irresponsible people.

To insure Victor quality, always look for the famous trademark, "His Master's Voice." It is on all products of the Victor Talking Machine Company.

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DURAND STEEL LOCKERS

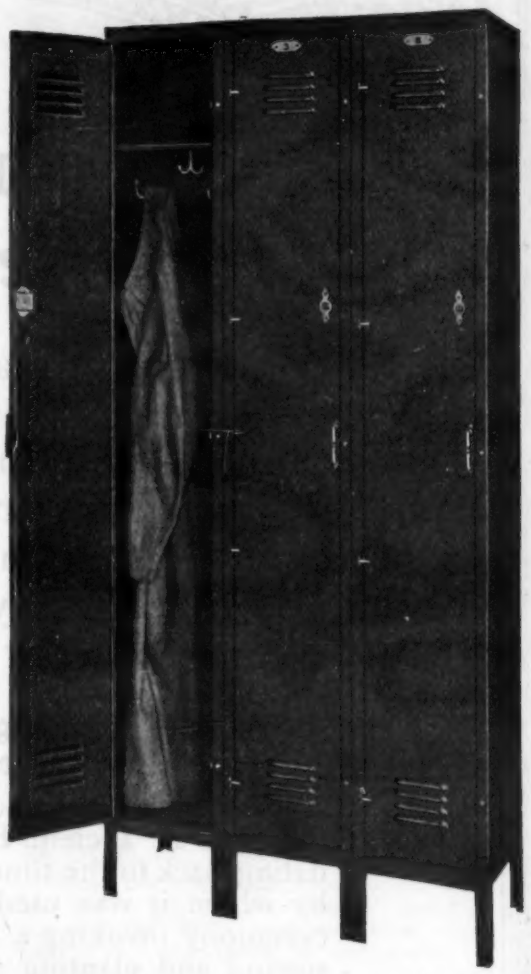
DURING vacation time you will make new plans, either for building, for alterations or additions, or for new equipment.

There is no item of equipment more important than steel lockers. Factory inspectors in many states insist on steel lockers for employees. Is the welfare of your pupils and the security of their property less important than that of factory workers?

Should not your school keep abreast with modern ideas of safety, sanitation and efficiency?

Write us now regarding any plans you may be considering. We can furnish estimates, suggestions, etc.

We make steel lockers for school, club and gymnasium use; also steel racks, bins, counters, etc. for all purposes.



DURAND STEEL LOCKER COMPANY

1521 Ft. Dearborn Bank Building
Chicago

921 Vanderbilt Building
New York City

TEACHERS' SALARIES

The attorney general of Washington has ruled that the school board of Tacoma may legally grant the teachers a requested raise of $10 per month, retroactive to September 1, 1918. The teachers expect that the board will take favorable action on their petition.

Winona, Minn. The board has fixed the maximum salary of grade teachers at $1,000, to be reached within a specified period of time.

Ann Arbor, Mich. The board has adopted a revised schedule, providing for a minimum increase of $100 and a maximum increase of $200.

Redfield, S. D. The teachers have been given a 15 per cent increase in salary. The present increase is in addition to a former one of ten per cent given last fall.

Yakima, Wash. The board has granted an annual bonus of $50 to teachers who remain in the schools a full year. One-half of the bonus is to be paid at the close of each semester.

Oklahoma City, Okla. The maximum monthly salary of teachers has been fixed at $120 per month.

Oshkosh, Wis. The board has fixed the minimum at $500 and the maximum at $800 per year.

Green Bay, Wis. The board has given increases of $100 to teachers and $150 to principals.

Sioux City, Ia. The board has raised the salaries of teachers 33⅓ per cent. The schedule provides for a minimum of $85 for a period of twelve months and becomes effective in August.

LeMars, Ia. The board has fixed the minimum salary for grade teachers at $90 per month and increases to $105 after three years. High school teachers will begin at $100 and increases up to $120.

Iowa City, Ia. The teachers have been given a general raise of fifteen per cent.

Evansville, Ind. The board has granted average increases of $100 a year to each teacher. The increases which are based on merit, may in some cases go slightly above the stipulated amount.

The school board of Pontiac, Mich., offers an increase of $100 to teachers who travel sufficient to equal a summer course, an extension course or a course in teacher training.

A minimum salary of $800 and a maximum of $1,500 a year for kindergarten and grade teachers are provided in a new salary schedule adopted by the school board.

Waco, Tex. The board has raised the maximum salary of grade teachers from $90 to $100.

Hastings, Neb. An increase of fifteen per cent in salary has been granted by the board.

Cedar Falls, Ia. The salaries of teachers have been raised by the addition of $10.

Des Moines, Ia. The school board has granted increases of fifteen per cent in salary to teachers in the schools. The increases are to become effective next fall.

Waterloo, Ia. The teachers have been given a 22 per cent increase in salary.

Menominee, Mich. The board has increased the salaries of grade teachers from ten to fifteen per cent, and those of high school teachers from twenty to thirty per cent.

Grand Rapids, Mich. The board has adopted a salary schedule providing for a minimum of $800. Class two teachers will be given $850, class three $900, class four $1,000, class five $1,100, class six $1,200 and class seven $1,300.

Baker, Ore. The board has granted increases of $10 per month to the teachers.

Niles, O. The board has raised the minimum salary of teachers from $65 to $75 per month.

Burlington, Ia. The board has given increases in salaries ranging from ten to twelve per cent. Salaries of high school instructors, supervisors and special teachers will range from $110 to $165 per month while the salaries of grade principals will range from $107 to $125 per month.

Elizabeth, N. J. The board has given a bonus of $150 to the teachers and principals of the schools.

Allegan, Mich. A new salary schedule provides that grade teachers, with one or two years' service, will be paid $800; those with three and four years' service, $825; five and six years' service, $850, and more than six years' service, $875. High school salaries will average about $1,000.

Charlotte, Mich. The minimum salary of grade teachers has been fixed at $800 and that of high school teachers at $1,000.

Davenport, Ia. The board has adopted a salary schedule providing for increases of $8 per month to teachers in the first seven classes and $10 to those in class eight.

Class one teachers will be paid from $60 to $68 a month for ten months; class two teachers from $66 to $74; class three, from $72 to $80 per month; class four, from $78 to $86 per month; class five, from $84 to $92 per month; class six, from $90 to $98 per month; class seven, from $96 to $104 per month; class eight, from $100 to $110 per month.

Fort Smith, Ark. Teachers have been given increases of ten per cent.

The California Senate has passed the Sharkey bills calling for an increase of $2,000,000 for elementary teachers, thus granting to the teachers of the state a minimum increase of $150 a year.

Canton, O. The board has increased the minimum salary from $550 to $700 a year and the maximum from $1,200 to $1,300 per year.

Lynn, Mass. The board has adopted a salary schedule providing for increases of from $50 to $100 for all teachers, with the exception of senior high school principals. The schedule goes into effect September first and is retroactive to January first.

Cadets and first year teachers will receive $550; second year teachers, $600; third year teachers, $700; fourth year teachers, $750; fifth year teachers, $800; sixth year teachers, $850; seventh year teachers, $900; eighth year teachers, $950.

First year teachers in junior high schools will be given $550; second year teachers, $600; third

(Continued on Page 65)

"There she is in the window—my little girl—why don't they save her? Let me go!" How often is this human tragedy enacted? When is it due to happen in your city? You cannot judge of this by the few accounts you read of school fires in newspapers.

A school fire a day

"WHY don't we read of school fires in the papers?" one man will ask skeptically.

"Schools are about the safest buildings in town," replies a friend, wise in his own opinion.

Suppose you were on a trip far from home and your schoolhouse burns down. Your children have a narrow escape and your wife is prostrated.

She cannot locate you by wire but trusts you have seen an account in the papers.

Your eye may chance to fall on a dispatch, a mere item, that will drive you to the long distance for real news.

When you get back home and read your local paper you will realize how panic seized the hearts of citizens, how mothers waited for the word of assurance or of eternal agony, how rescues were made by fire fighters and faithful teachers.

After that you won't measure the danger in school buildings by the few newspaper items you see now and then.

According to experts in scientific fire protection, Grinnell Automatic Sprinklers are worth more than all the other building alterations and vigilant measures a community can provide. They are always on guard, in every part of the building. When the fire starts the water starts.

Read—"*Fire Tragedies and Their Remedy*"

Any individual, trustee or official will find in "Fire Tragedies and Their Remedy" the unvarnished truth and a path of imperative Social service. Write for it today. Address General Fire Extinguisher Company, 291 West Exchange Street, Providence, R. I.

Take these plain facts

Some five billion dollars of business property has been protected from fire by automatic sprinklers.

State Industrial Commissions are guarding the lives of factory employees by requiring this same unfailing protection in business property.

The United States Government insisted on war industries being so protected.

GRINNELL
AUTOMATIC SPRINKLER SYSTEM

When the fire starts the water starts

Your Janitor can get the Ashes out Cleaner, Quicker and Quieter with A G&G TELESCOPIC HOIST

with Automatic Gear Shifting Brake Device and Silencer

1 man removes ashes from basement to wagon

ONE MAN can remove more ashes and waste from your school with a G & G Telescopic Hoist than can three or four men with the old rope and pulley outfit.

With a G & G Hoist the entire job is performed quickly and quietly without the usual muss and waste of time and labor.

Model B, illustrated, is one of five models (hand or electric power). It is designed to enable one man to raise cans from basement to a position above ash cart without rehandling at sidewalk.

Other models are fully described in a pamphlet especially prepared for school officials. A copy will be gladly sent on request.

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WASTE BASKETS

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Elementary School Record Card, Superintendent's Office
Elementary School Record Card, Principal's Office
High School Record Card, Superintendent's Office
High School Record Card, Principal's Office
High School Registration Card
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Elementary Principals' Record Book
(Loose Leaf)

Age-Grade Progress Table

Age-Grade Computation Table

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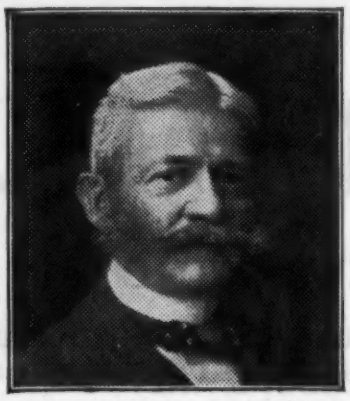

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(Continued from Page 62)

year teachers, $700; fourth year teachers, $800; fifth year teachers, $850; sixth year teachers, $900; seventh year teachers, $950; eighth year teachers, $1,000.

Merrill, Wis. The board has granted salaries ranging from $70 to $85 per month.

Garretson, S. D. The board has granted increases of $10 per month.

The Iowa Senate has passed a bill providing a minimum salary of $100 a month for teachers who are graduates of a four-year college course, with increases of $120 a month after two years' experience. Teachers who are graduates from a two-year normal course will receive $80 a month and $100 after two years' experience. Those graduating from a course in a normal training high school with less than a year's experience are to receive a minimum of $65 a month and $75 after a year's experience, and after two years' experience, $80 per month.

Those graduating from a normal training high school and holding a second grade certificate will be given a salary of $60 a month, with increases of $65 after a year's experience. Those holding a third grade certificate will be entitled to $50 per month.

Belvidere, Ill. The board has granted increases of $50 to $150 to grade teachers and increases of from $50 to $250 to teachers of the high school.

Dubuque, Ia. The board has given a bonus of $100 to each member of the teaching corps and has granted increases of $250 each to teachers, principals, supervisors and special teachers. The present increases raise the maximum for teachers of grades one to six to $1,150 per year, for teachers of seventh and eighth grades to $1,180 and for women teachers in the high school to $1,500.

Whiting, Ind. The board has adopted a minimum salary of $1,000 for kindergarten and grade teachers. Other teachers will begin at rates relatively higher.

LaGrande, Ore. The teachers, for the second time in two years, have received substantial increases in salary. The principal and faculty of the high school have been given increases of $100 annually and grade teachers have been advanced $10 per month.

Canton, O. The board has adopted a complete salary schedule providing for substantial increases for the teaching and supervisory corps, based upon the salaries at time of appointment and payment to be made following each year of successful experience.

Elementary teachers will receive annual increases of $50 until a maximum of $1,300 is reached. Junior high schools, ninth grade teachers will receive annual increases of $75 until a maximum of $1,750 is reached. Senior high school teachers will receive annual increases of $100 until a maximum of $2,000 is reached.

Junior high school principals will receive annual increases of $100 until a maximum of $2,100 is reached in schools having fewer than sixteen teachers. A maximum of $2,500 is fixed in schools having more than sixteen teachers. Senior high school principals and assistants will be increased by action of the board. Principals of elementary schools will receive annual increases of $100 until a maximum of $1,700 is reached.

The supervisor of drawing will begin at a minimum of $1,200, and will be given annual increases of $100 up to a maximum of $1,700. Assistants in drawing will begin at $900, and will be given annual increases of $75 up to a maximum of $1,400. The supervisor of music will begin at $1,200 and will be given increases of $100 up to a maximum of $2,000. Assistants in music will begin at $900 and will be given increases of $75 up to a maximum of $1,500. Teachers of sewing and cooking in elementary grades will begin at $800, and will be given increases of $50 up to a maximum of $1,400. High school teachers will begin at $900, and will be given increases of $100 up to a maximum of $1,750. Teachers of manual training in the grades will begin at $1,200 and will be given increases of $100 up to a maximum of $1,500. Teachers in high schools will begin at $1,200 and will be given increases of $100 up to a maximum of $1,800. Physical culture teachers will begin at $750 and will be given increases of $50 up to a maximum of $1,300.

In connection with the salary schedule, the board has adopted a set of rules to govern the professional requirements of teachers. These are:

All persons who have graduated in an approved normal school, or college, in which the course completed required at least thirty semester hours in education.

All persons who have graduated in some approved high school and have had two years' successful experience or have spent one full year in some approved training school for teachers.

All persons who have graduated in some approved high school and who have not graduated from college, but have spent one or more years in college, must either have one year's experience or attend a summer school of methods for a period of at least six weeks. Fifteen semester hours of work in education while attending college may offset the summer training.

All graduates of the Canton high school who have not fulfilled one of the preceding requirements before being eligible for appointment must have satisfactorily completed the teachers' training course of the Canton schools.

Graduates of approved colleges or normal schools, or teachers of successful experience in the Canton schools are eligible for appointment to the junior high schools. The same scale will apply to teachers of the seventh and eighth grades as applies to teachers in the elementary grades.

Graduates of approved colleges, with two or more years' successful teaching experience in schools of high school grade, or two or more years' successful teaching experience in junior high schools or elementary grades of the schools will be eligible for appointment to the senior high school.

Graduates of approved colleges will be eligible to appointment upon evidence of having had the experience and training which specifically fits them for supervisory and executive duties.

Graduates of approved colleges with experience as a principal in scondary schools, or college graduates within the school system, who have

(Continued on Page 69)

No. 43 Non-Adjustable Desk

Superior

"The Quality Line"

is an expression voiced by thousands of satisfied users.

SOME OF THE REASONS ARE:

The use of the best grades of Southern Michigan hard maple, manufactured as carefully as for the highest quality household furniture—Exceptionally high quality finishing material applied to ***both*** sides of the woods to afford complete protection against climatic conditions—Careful inspection and immediate rejection of defective parts—Correctly proportioned standards for maximum strength and continuous chemical analysis of semi-steel mixture from which they are made.

Prices Lowest—Quality Considered

No. 65 Adjustable Desk

A guarantee that protects—No time limit.

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Another Evidence of Quality

is that the Superior Line has been handled continuously for years by the following nationally known school furniture and supply houses—our exclusive representatives:

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Manufactured by **Superior Seating Co**

School Desks

Our Service Ideal

is to make the complete line of Superior School furniture (guaranteed a lifetime against defective material or workmanship) quickly obtainable by every school board in the country at the lowest possible cost.

To accomplish this large stocks are carried in our distributors' warehouses in Cleveland, O., Minneapolis, Minn., Kansas City, Mo., Dallas and Houston, Tex., Ft. Smith, Ark., and New Orleans, La., in addition to the immense stock in three large warehouses at the factory. Your needs will be supplied promptly from a convenient shipping point.

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Prompt shipment—always

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The Superior Line is Complete

Adjustable and non-adjustable desks with semi-steel and tubular pressed steel standards; separate desks and chairs; study desks; commercial desks; typewriter desks; tablet arm chairs and settees; recitation seats; auditorium chairs—every item made in popular, practical patterns to suit any requirement.

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No. 62 Adjustable Desk

Company, Muskegon, Mich.

Absolute Diffusion with the UNIVENT

"LIVE OUTDOORS INDOORS"

100% diffusion of fresh air is important in a ventilating system.

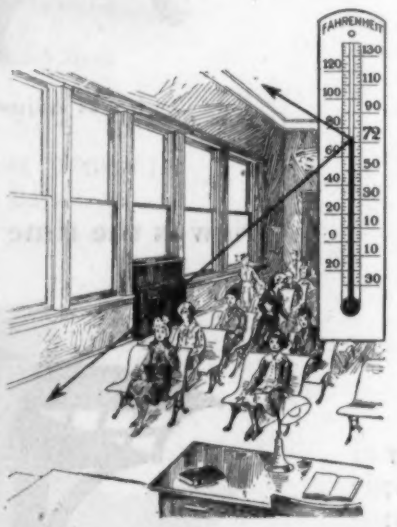
The fresh air should be thoroughly distributed to every nook and corner of the room, if 100% ventilating is to be accomplished.

This is possible only with the UNIVENT. To prove the absolute thoroughness of diffusion where the UNIVENT is used, it is only necessary to place thermometers in any part of the room, at floor and ceiling, to know the absolute uniformity of temperature.

Ordinarily the temperature at the ceiling is several degrees warmer than at the floor, indicating improper diffusion. Not so with the UNIVENT.

This is only one outstanding feature of the UNIVENT system of ventilation. There are many others.

Ask your architect to roll up your plans and send them to us for inspection and suggestions.



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Moline Heat EVERYWHERE

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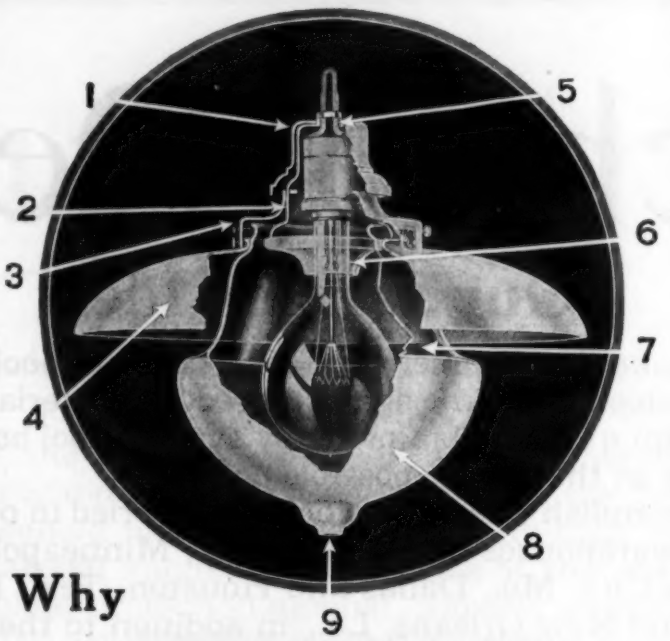

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DENZAR

is the perfect lighting unit for the schoolroom

Soft, clear radiance, flooding every part of the room, without blinding glare or deep shadows—that is what this new and improved unit will give you. The reasons lie in these points of superior construction:

1—Housing of steel, white porcelain enameled.

2—Yoke of spring steel supporting metal holder.

3—Metal holder supporting reflecting dome and lower bowl.

4—Reflecting dome of opal glass, softens and distributes light.

5—Adjustable hanger for adjusting lamp without removing glassware.

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9—Air intake, allows cool air to pass upward continually around lamp.

DENZAR makes it possible to use in the schoolroom or assembly hall the high powered and economical Mazda "C" lamp, thereby securing better illumination with less current.

Write for the DENZAR catalog, showing different types, sizes and prices.

BEARDSLEE
Chandelier Mfg. Co.

Manufacturers of a Complete Line of Chandeliers and Bronzes for Every Lighting Requirement

219 South Jefferson Street ::: CHICAGO

Keep a Record of Your Pupils—For Health's Sake

In every school the child must *grow* as well as *learn*.

The time is not far distant when every school will keep a record periodically of every boy and girl—for health's sake. Every child will be weighed and measured from month to month during the term, and the progress of that pupil recorded.

Almost excellent weighing and measuring machine for school use is—

SCHOOL *The DeLuxe* SCALES

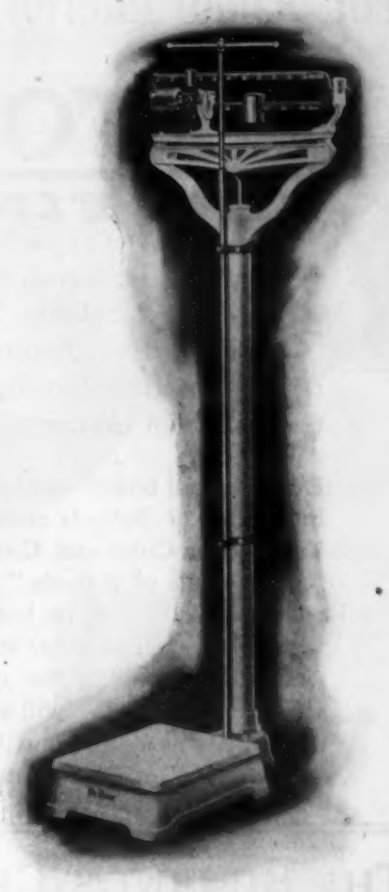
WITH MEASURING DEVICE

Sturdily built, compact,—no loose weights,—accurate and durable.

Mechanically simple and specially constructed to endure the hard usage of the schoolroom. Absolutely accurate in every sense for correct weight and measurement.

Attractive in design, finished in snow-white enamel, the **DeLuxe** adds to the appearance of any schoolroom. Our oven-baked enameling process insures lasting finish.

We will be glad to furnish further particulars on request from School Superintendents and Instructors.



Chicago Scale Co.
ESTABLISHED 1863
MASON, DAVIS & CO.

7700-7740 So. Chicago Ave.
Grand Crossing Chicago, Ill.

(Continued from Page 65)

proven themselves to have strong executive ability and who have made specific preparation for administrative work will be considered eligible for appointment as principals or assistant principals of senior high schools.

Applicants for principalship of elementary schools must be graduates of recognized normal schools or colleges and must give evidence of special fitness for executive and supervisory duties. must be well acquainted with elementary school problems and methods, and must be specially fitted to supervise the instruction in elementary grades.

Manitowoc, Wis. The school board has adopted a complete salary schedule for the teachers and principals, supervisors of special subjects and the superintendent of schools. Supt. P. J. Zimmers has been given a salary of $4,000 for the ensuing school year.

Teachers—The salaries for the first grade range from $800 to $925; the kindergarten, from $825 to $900; the second grade, from $800 to $950; the third grade, from $800 to $875; the fourth grade, from $800 to $925; the fifth grade, from $800 to $925; the sixth grade, from $800 to $850; the seventh grade, from $900 to $950; the eighth grade, $1,000.

Principals—The principals' salaries for the grade schools range from $1,350 to $2,200. The high school principal is given $3,000.

The school board of Bozeman, Mont., has adopted a salary schedule providing for a minimum of $1,000 for the first grade and a maximum of $1,250; teachers in grades two to six inclusive, begin at a minimum of $950 and reach a maximum of $1,250, while teachers of junior high schools begin at $1,050 and reach a maximum of $1,300.

Principals' salaries range from $1,300 to $1,500 each, while the principal of the junior high school is given $1,700. Principals are paid on the twelve-month plan and give two or more weeks during vacation, to work as directed by the superintendent.

Supervisors of music at the end of the third year receive $1,350, those in art receive $1,250 at the end of the first year, those in domestic science $1,200 at the end of the first year, and those in manual training $1,800 at the end of the second year.

Teachers who have taught in the city schools six or more years receive the maximum salary. Inexperienced teachers, with high normal school standing and exceptional qualifications, will be considered for appointment and will be given a minimum salary of $900.

Fremont, O. The board has adopted a salary schedule which applies to high schools and to elementary grades and becomes effective in September, 1919.

The minimum for teachers with no experience has been fixed at $70 per month, with one year's experience at $80, two years' experience $85 and three years' experience $90. Teachers with one year's professional training and no experience will begin at $75, those with one year's experience advancing to $85, two years to $90, and three years $95. Teachers with two years' training and no experience will begin at $80 and advance to $90 after one year's experience, $95 after two years and $100 after three years' experience. Teachers with three years' training and no experience will begin at $85, advancing to $95 after one year's experience, $100 after two years, and $105 after three years' experience. Teachers with four years' training will begin at $90, advancing to $100 after one year's experience, $105 after two years' experience, and $110 after three years' experience.

New teachers must be graduates of high schools and must have completed such additional professional training as prescribed by the state law. Experienced teachers elected to teaching positions from other school systems will be credited with such experience in a ratio proportionate to similar service in the Fremont schools. After four years of experience, all teachers automatically become independent of the schedule and may receive increases as determined by the school board.

Sioux City, Ia. The board has granted salary bonuses ranging from $50 to $200, to 257 teachers in the schools. The total bonus amounts to $28,600.

NEW RULES and REGULATIONS

RULES FOR BUSINESS MANAGER.

The rules of the Worcester school board have been amended providing for the creation of the office of Business Manager of the Worcester, Mass., schools, and for defining his duties as follows:

Annually in January, at the meeting for organization, the School Committee shall elect a Business Manager and fix his salary.

He shall duly notify teachers in writing of their appointment and election and shall keep a correct list of teachers employed by the city with the salaries paid them. He shall furnish to teachers such blanks as may be required for the proper exercise of their duties, and he shall receive their reports, and classify and file them. He shall perform such other duties as may be required of him by the School Committee or by any of its special committees or the superintendent. He shall have an office at such place and open at such hours as shall be approved by the School Committee. In his absence, a clerk pro tempore shall be elected by a viva-voce vote.

The Business Manager shall purchase and distribute to the schools and to the teachers such registers, books, stationery, and supplies as are needed, and shall perform such other duties as the School Committee shall from time to time require.

He shall receive and examine all bills for expenditures authorized by the School Committee, and, if they are found correct, he shall approve the same. He shall secure, for the approval of the monthly bills, two members of the School Committee, who shall examine the bills and ap-

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ARTONE
FLAT FINISH

FROM the standpoint of economy, durability, beauty and sanitation, Artone Flat Finish is the ideal flat finish for interior School decorating.

Every school board member and Superintendent of Schools should read "A Treatise on Color and Color Blendings for the Walls of Schools." It contains results of color tests on both pupils and teachers as well as other interesting information regarding the decorating of school interiors. We will send copies of the treatise and also beautiful color chart of Artone Flat Finish upon request.

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DECK PAINT

for porches, floors and walls
DRIES HARD OVERNIGHT

MANY of the leading schools of the country standardize on U. S. N. Deck Paint on account of the service it gives and its economy. U. S. N. Deck Paint will stand the hardest kind of use, and, in addition, can be scrubbed repeatedly without injuring its surface. A room painted with U. S. N. Deck Paint is ready for use twelve hours after painting, under average conditions.

Made in many beautiful shades, color chart of which will be sent upon request.

THE BILLINGS CHAPIN CO.
BOSTON CLEVELAND NEW YORK

prove their payment, previous to their being forwarded to the office of the City Auditor. He shall also prepare the pay rolls. He shall prepare for the School Committee the annual returns required by law and transmit the same, after they have been duly signed, to the Commissioner of Education.

He shall prepare and submit to the Committee of the Whole, at its meeting previous to the regular January meeting in each year, an estimate in detail of the appropriations required for the expenses of the school department for the ensuing year. He shall act as the agent of the School Committee in the purchase and distribution of books and supplies for the schools. He shall keep a full and accurate account of all receipts and disbursements and furnish a monthly statement of the same to the School Committee, with a statement of the amounts of the various appropriations expended and unexpended.

Rules for Flag Raising.

With the approval of the superintendent, Ernest L. Thurston, the superintendent of janitors of Washington, D. C., has issued the following rules to make uniform the procedure in connection with the raising and lowering of the school flag:

The flag will be raised at 8:30 on school days and lowered at 4:30 p. m.

When flying the flag at half-mast, it should be raised to full-mast, and then lowered to half-mast at 8:30 and at 4:30. When the flag is taken down, it should be raised to full-mast first, and then taken down.

On national holidays and other days when ordered by proper authority, the flag should be raised at 8:30 and lowered at 4:30, irrespective of the fact that it is not a school day.

There should be two flags—one for display in good weather and the other for stormy days.

Mr. John H. Finley, Commissioner of Education for the state of New York, has returned to the United States from service in the Holy Land. Mr. Finley was in charge of the relief work undertaken by the American Red Cross for the populace of Palestine, Seria and Armenia.

PERSONAL NEWS of SUPERINTENDENTS

Mr. Albert S. Williams, for the past two years state high School inspector for Tennessee, has been appointed State Superintendent of Instruction to succeed W. S. Sherrill.

Mr. Williams is one of the youngest men to hold a similar office in the state. He is a graduate of Vanderbilt University and has had several years' experience as a teacher, principal and high school supervisor.

Supt. Karl Hanson of Roland, Ia., has been re-elected for another three-year term, at a salary of $2,000 per year.

Dr. Harold W. Foght of Washington, D. C., has been elected president of the Northern Normal and Industrial School at Aberdeen, S. D., to succeed W. E. Johnson. Since 1912 Dr. Foght has been specialist in rural school administration for the Bureau of Education.

Supt. T. W. Callihan of Galesburg, Ill., has been re-elected for the next year.

Supt. C. A. Green has been re-elected head of the schools at Webb City, Pa.

J. H. Voris, of Rockwell City, Ia., has accepted the superintendency at Decorah, at a salary of $2,200.

Supt. E. J. Rodwell has been re-elected for a three-year term at Ames, Ia.

Mr. P. G. Lantz, formerly principal of the high school, has been elected superintendent of schools at Petoskey, Mich. Mr. Lantz is a graduate of Indiana State University and the University of Wisconsin and has taken special work at Columbia University.

Supt. H. Neinhuis of Deadwood, S. D., has resigned.

Supt. C. M. Bardwell of East Aurora, Ill., has been re-elected for the next year.

Walter E. Scott of Hanover, Kans., has been elected principal of the high school at Fairbury, Neb.

Mr. Leslie A. Butler, of the Central Normal College, Mt. Pleasant, Mich., has been elected superintendent of schools at Ann Arbor.

Supt. W. F. Hall of Russellville, Ark., has been re-elected for his sixth term, at a salary of $1,800 per year.

Supt. M. M. McIntire of Audubon, Ia., has been re-elected, with a salary of $2,400.

Mr. A. W. Moore of West Union, Ia., has been elected superintendent of schools at Oelwein, at a salary of $2,400.

The salary of Supt. J. R. Cougill of Nevada. Ia., has been raised from $2,100 to $2,400.

Supt. L. A. Tyler of Traverse City, Mich., has returned to the United States after several months of service in France as a Y. M. C. A. worker.

Supt. J. R. McAnelly of Spencer, Ia., has been re-elected for the next year, with a salary of $2,400.

Mr. H. C. Bell has been elected superintendent of schools at Luverne, Ia.

Mr. E. M. Sipple has been elected superintendent of schools at Burlington, Ia. Mr. Sipple entered upon his duties in June.

Mr. A. E. Johnson of Graettinger, Ia., has been elected superintendent of schools at Luverne.

Mr. A. C. Eldredge, assistant superintendent of schools at Cleveland, O., has been appointed on the State Board of Education.

The salary of Supt. Ernest C. Hartwell of Buffalo, N. Y., has been raised to $10,000.

Mr. M. H. Read of Lawrence, Kans., has been elected superintendent of schools at Holton, to succeed Mr. Leamer.

Supt. A. A. Hoover of Union City, O., has been given a year's leave of absence for the restoration of his health. Mr. Hoover has been connected with the Union City schools for the past thirty years.

Mr. T. D. Brooks has resigned from the presidency of the Southeastern State Normal School at Durant, Okla. Mr. Brooks has entered upon a special course of study at a higher institution of learning.

(*Concluded on Page 73*)

Measures of Musical Talent

By Prof. C. E. Seashore

The "Measures of Musical Talent," prepared by Professor C. E. Seashore, Head of the Department of Philosophy and Psychology, and Dean of the Graduate School of the University of Iowa, are now available in the form of Phonograph Records.

Are you interested in the discovery and encouragement of Musical Talent? Do you believe special advantage in music should be given to those who have superior talent? Do you believe that the organization of music in the schools should be based upon scientific information about talent? Do you believe in serving the community by follow-up work in the interests of the musically talented? If so, the Seashore "Measures of Musical Talent" records will be a most welcome aid to you.

The numbers and names are as follows:

A 7536 12 in.	Measures of Musical Talent, Sense of Pitch, No. 1A. Measures of Musical Talent, Sense of Pitch, No. 1B.
A 7537 12 in.	Measures of Musical Talent, Sense of Intensity, No. 2A. Measures of Musical Talent, Sense of Intensity, No. 2B.
A 7538 12 in.	Measures of Musical Talent, Sense of Time, No. 3A. Measures of Musical Talent, Sense of Time, No. 3B.
A 7539 12 in.	Measures of Musical Talent, Sense of Consonance, No. 4A. Measures of Musical Talent, Sense of Consonance, No. 4B.
A 7540 12 in.	Measures of Musical Talent, Tonal Memory, No. 5A. Measures of Musical Talent, Tonal Memory, No. 5B.

Every school that has the musical interests of the pupils and the community at heart should have a set of these test records. They are as essential to the work in music as are the tests in Reading, Spelling and Arithmetic.

The complete outfit of Measures of Musical Talent consists of five 12-inch double-disc records and a Manual of Instructions and Interpretations. The price complete, $7.50, at any Columbia dealer.

A complimentary copy of the Manual of Instructions and Interpretations will be sent upon request.

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Special Price to School
$80.00

Columbia School Grafonola with Pushmobile

Doors fitted with lock and key.
Seven shelves for records.
Reproducer, winding-crank and turntable may be locked in pushmobile.
Either Oak or Mahogany.

Columbia Records Grafonola

Clip this coupon and mail today:

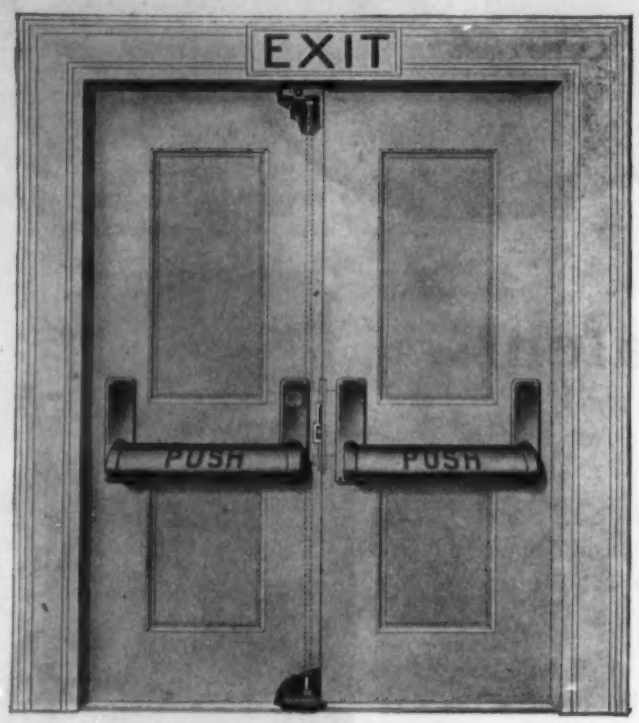
COLUMBIA GRAPHOPHONE COMPANY
Educational Department
Woolworth Building, New York City
Please send the following literature:
(Check subject desired)

- **Musical Measurement Manual** ☐
- **Grafonola in the Class Room** ☐
- **Music Appreciation Record List** ☐
- **"Music Moods" Bulletin** ☐

Name .....
Town .....
State .....
Grade ..... (A. J. June)

Safety provided in every point

Quick exit is assured and the construction is such that in operating the push bar the hands or arms cannot be caught between the bar and the door.



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Reg. U S. Pat. Off.

Fire Exit Door Bolts

are attractive in appearance, strong in construction and quick in action.

They have a wide push bar which projects only 2½ inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

Sargent Fire Exit Door Bolts, Locks and Hardware are sold by representative dealers in all cities.

SARGENT & COMPANY, Manufacturers
New Haven, Conn.
New York Boston Chicago

TO THE GLORY OF THE AMERICAN TEACHER

— the very spirit of the American people and American life during the war was reflected in the schoolroom.

All over the country in this natural workshop and social gathering place of children, pupils were asking the teachers what they could do to help. Here came the test of the efficiency of the American School.

To many a schoolmaster came convincing proof that the school will relate itself to real life to fulfil its highest mission.

The children were reading the news, they were hearing and talking about it; they were going to motion pictures about the world war and thinking things over.

During your vacation why not study motion pictures and how they may help in your school? Get hold of the principle of educational value that governs the interest of children in motion pictures.

Two masters of observation were Newton and Galileo. One watched an apple fall and discovered the law of gravitation. The other watched the heavens and saw that the earth moves.

Train the powers of observation of school children by motion pictures, and you will develop their power of thought.

This can be done where the teacher has the closest co-operation of the best selected film service.

We wish our friends who are educators to study our methods of teaching through motion pictures by visiting the Community Motion Picture Bureau in New York and *seeing* our methods. Write or visit the Home Office at 46 West 24th Street, New York City.

Community Motion Picture Bureau

46 West 24th Street
NEW YORK

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The advantage of the School Lunch Room is no longer a theory. It is a fact acknowledged by school authorities the country over. Our position as headquarters for Lunch Room or Cafeteria Equipment should commend us to your consideration when buying. You will find our goods and our service superior to others. Our experts will design a Lunch Room or Cafeteria to meet your special requirements. If your school now serves lunches you should have a copy of our catalog. It will guide you to economical purchases of Lunch Room or Cafeteria Equipment. No matter what your requirements may be, we can furnish just what you want at the price you want to pay.

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208-224 WEST RANDOLPH STREET, CHICAGO, ILLINOIS

Write for these Catalogs:
General Catalog ..... Book Y19
Lunch Room Book ..... Book Y10

(*Concluded from Page 70*)

Supt. J. H. Francis of Columbus, O., will return to the superintendency on July first. Mr. Francis has been in Washington for the past two years in charge of school gardening work.

Mr. Charles D. A. Dawson has been appointed assistant superintendent of schools at Grand Rapids, Mich. Mr. Dawson will have charge of the department of statistics, census and attendance.

Mr. Edwin S. Monroe of Muskogee, Okla., has been elected superintendent of schools at Hammond, Ind. Mr. Monroe is a graduate of Illinois Wesleyan University and Hanover College, and has been head of the Muskogee schools for ten years.

Supt. A. C. Hampton of LaGrande, Ore., has been re-elected for a second term, at an increased salary.

Mr. H. M. Dubois, principal of the high school at LaGrande, Ore., has been re-elected for the next year.

Supt. Arthur S. Hudson of Mt. Clemens, Mich., has announced his resignation, effective with the close of the school year.

Mr. C. W. Street of Yankton, S. D., has been elected superintendent of schools at Mankato, Minn., at a salary of $2,800 per year. Mr. Street is a graduate of Carleton College and of the University of Minnesota. He formerly filled superintendencies at Redwood Falls and at Glencoe, Minn.

Supt. M. D. Chittenden of Burlington, Vt., has been re-elected.

Mr. James M. Tilley, assistant superintendent at Terre Haute, Ind., has been elected superintendent of schools, to succeed C. J. Waits. Mr. Harry Mowery is being considered as a successor to Mr. Tilley.

Supt. J. A. Whiteford of Oklahoma City, Okla., has been re-elected with an increased salary of $6,000 per year.

Mr. W. A. Ziegler, an instructor in the College of Science, Literature and Arts at the University of Minnesota, has been elected superintendent of schools at Thief River Falls, Minn. Mr. Ziegler is at present pursuing a post-graduate course at the University and will take up his new duties in September.

Supt. J. A. Whiteford of Oklahoma City, Okla., who has been given an increase of $2,000 in salary, raising it to $6,000, was approached last September with a request that he go to France as an educational expert for the Y. M. C. A. War Work Council. Supt. Whiteford, at the board's request, declined the position, and remained in charge of the school system. The new contract takes effect in August and is for one year.

Supt. A. J. Stoddard of Beatrice, Neb., has been re-elected for a three-year term, at an increased salary of $3,000.

Supt. Wm. Davenport of Medford, Ore., has been re-elected for a three-year term at a salary of $2,700 for 1919 and 1920, and $3,000 for 1921. Supt. Davenport's re-election and increase were given in recognition of the excellent service rendered during the past year. It was shown that the general efficiency of the school system had been raised fifty per cent.

THE NEW SCHOOL CODE FOR NEW HAMPSHIRE.

The state of New Hampshire has adopted a progressive piece of legislation to further the interests of the schools and to raise the standards of supervision. In brief, the code provides as follows:

The school board of every district shall provide standard elementary schools for at least 36 weeks in each year at such places in the district as will best serve the interests of education and give to all the pupils within the district as nearly equal advantages as are practicable.

A standard school as that term is used in this act is one maintained for at least 36 weeks in each year, in a suitable and sanitary building, equipped with approved furniture, books, maps and other necessary appliances, taught by an approved teacher, directed and supervised by an approved superintendent, with suitable provision for the care of the health and physical welfare of all pupils.

Each school district in the state shall pay to the state treasurer on or before December 1 in each year, as its share of the expense incident to state-wide supervision of the public schools, a sum equal to two dollars for each child residing in the district who was enrolled in the public school in the last preceding school year, and the selectmen shall annually assess upon the value of the ratable estate of the district a sum sufficient for this purpose.

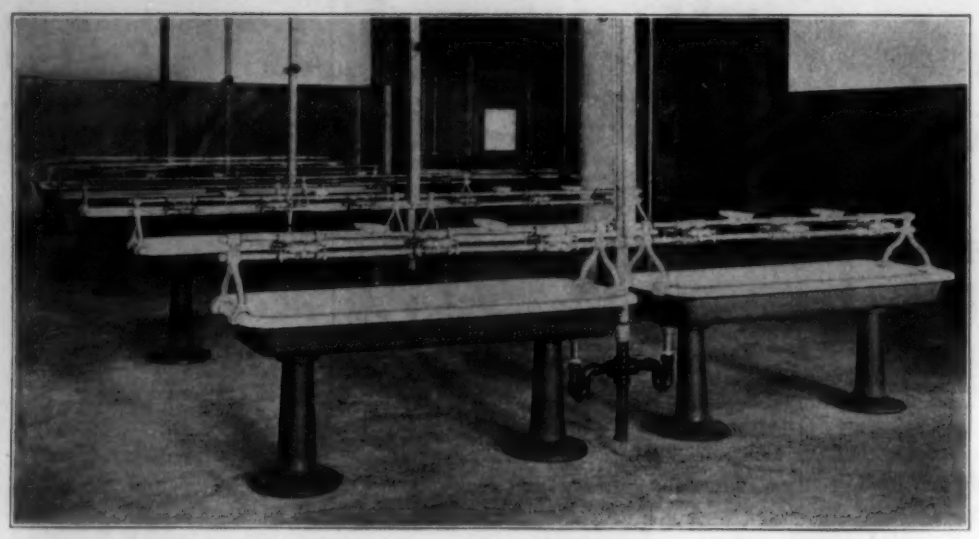
For each child residing in town and attending any public school $2 will be payable December 1, 1919. The selectmen should assess to meet this obligation.

The selectmen in each town shall assess an annual tax of $3.50 on each $1,000 of the value of the ratable estate taxable therein for the support of the public schools.

The school board of each district in its annual report shall state in detail the additional sums of money, if any, which will be required during the ensuing fiscal year for the support of the public schools, for the purchase of textbooks, scholars' supplies, flags and appurtenances, and for the payment of the tuition of the pupils in the district in high schools and academies in accordance with chapter 96 of the Laws of 1901, and for the payment of all other statutory obligations of the district. The selectmen of the town, in their next annual assessment, shall assess upon the taxable property of the district a sum sufficient to meet the obligations above enumerated, with such alterations thereof as may be voted by the district, and when collected shall pay the same over to the district treasurer.

In any district in which the money produced by a tax of $5 on $1,000 of the value of the ratable estates in the district is insufficient to maintain the required elementary and special schools, the state board shall provide the balance of the money necessary from the money appropriated for that purpose by the provisions of this act. In districts so aided the state board, acting thru the local school boards, shall administer all money available for the maintenance of the public schools and shall account for the money raised by the districts as well as that furnished by the state.

"BIG BUSINESS" BUYS WOLFF PLUMBING



Washrooms of the Continental Can Company of Clearing, Illinois.
J. J. Daly, Plumbing Contractor.

WHEREVER long life, constant service and high efficiency are demanded of plumbing, there WOLFF Products command the interest of owner, architect and contractor.

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Chicago, Illinois

THE CONSOLIDATED RURAL-SCHOOL BUILDING.

(*Concluded from Page 37*)

be purchased and a home for the principal teacher, preferably a man with a family, provided. Transportation should be provided in school-owned automobiles. These factors should stand as the minimum consolidated school plant. Where the district at first brings in only enough pupils for two rooms the other two classrooms may be used in place of the agriculture and home-economics rooms, but there are serious disadvantages here. The equipment may require moving later and if pupils are put into the rooms as regular classes as the district grows in size and perhaps in population there may be no extensions provided for these most necessary features of rural education until a high-school is needed. There will be types of three kinds, as to size, climatic variation, and inventive variation. New types will long continue to be invented. North Dakota and Louisiana will have considerable climatic differences and there will be almost as many types as to size as there are rooms and special features. There may also be one-story, one-story and separate heating room, two story, and two-story and small-basement heater types. There will also be specifications as to materials of construction and cost. These cannot be entered into here. Help can usually be had from the U. S. Bureau of Education and from the State Department of Public Education in the capital city. No consolidated school should be erected without the full approval of the State Department mentioned and this should have in its employ a school hygienist who is conversant with the details of consolidated-school architecture and practical building problems in the state. Teachers should use every effort in securing educational school plants and rigid supervision from the educational point of view.

I have herein intended to recommend for serious consideration the one-story building with a single row of classrooms built in the form of a wide U flanked by a corridor on the inside. From the front-center, making the U an E, runs back the auditorium, gymnasium and, perhaps, the lunchroom. The light is largely from the left and overhead but there are windows on the right (of pupils as seated) and in cases, on the rear (where they would not open into another classroom). The classroom is the reverse of the shape now being rigidly made standard by the standardizers. Perkins' plans most nearly fit my ideas.

Most socalled consolidated rural schools today are doomed to disappointment from the first by needs of the problem. Something may be reasonably expected from consolidation only when we have real consolidation. We *can* thresh grain with a flail but our results cannot be compared with those of the best modern threshing machines. Let no one say consolidation is a failure until he knows not only what kind of teachers and curriculum are used but with what kind of a school plant they are being helped or embarrassed. The well set-up school plant contributes to the spiritual as does the well set-up body. In the words of Browning:

"And soul helps not body more
Than body helps soul."

THE PLAUSIBLE STRANGER.

(*Concluded from Page 45*)

them have representatives in the field. It is an easy matter for a school board to find out from the county superintendent whether a salesman represents a reliable company and whether a given article is worth the price asked. Any honest supply house will encourage investigation of this kind. It is a good idea to beware of anyone who has a "cure-all" to sell and who cannot wait until you consult with your superintendent.

Have you ever met the plausible stranger?

LAWS.

The Iowa legislature has just passed a law which requires the closing of all schools in which the attendance falls below seven. The new law will have the effect of closing three thousand schools and will permit a large saving in maintenance expenses.

The Ohio Senate has defeated the Cable "house" bill requiring county boards of education to be elected directly by the people instead of by presidents of township and village boards. The defeat of the bill has prevented a modification of the school code of 1914.

The Minnesota state senate has adopted the educational appropriation bill providing $12,759,996 for educational purposes for the next two years.

The State Legislature of Ohio has turned over to Governor Cox for signature the Freeman teachers' pension bill which provides for the taking over of existing pension systems. Teachers not in a city pension system on September 1, 1920, and those entering the profession after that date, are required to become members. After three years' consecutive teaching, a teacher may not be removed except for cause.

Legislation to carry out the fifty-fifty plan of teachers' salary increases has been presented in the Pennsylvania House. The bill which is supported by Representative Catlin, provides for teachers receiving $200 or less a month. The cost of the measure would be $2,500,000 for the state each year and similar amounts for each district.

Governor Townsend of Delaware has signed the new school code bill passed by the state legislature. The law which goes into effect at once, provides that the governor shall appoint all the school commissioners for one year, after which they will be elected by the voters of the district.

School Remodeling Time

brings up the subject of

CLOW

Plumbing Fixtures

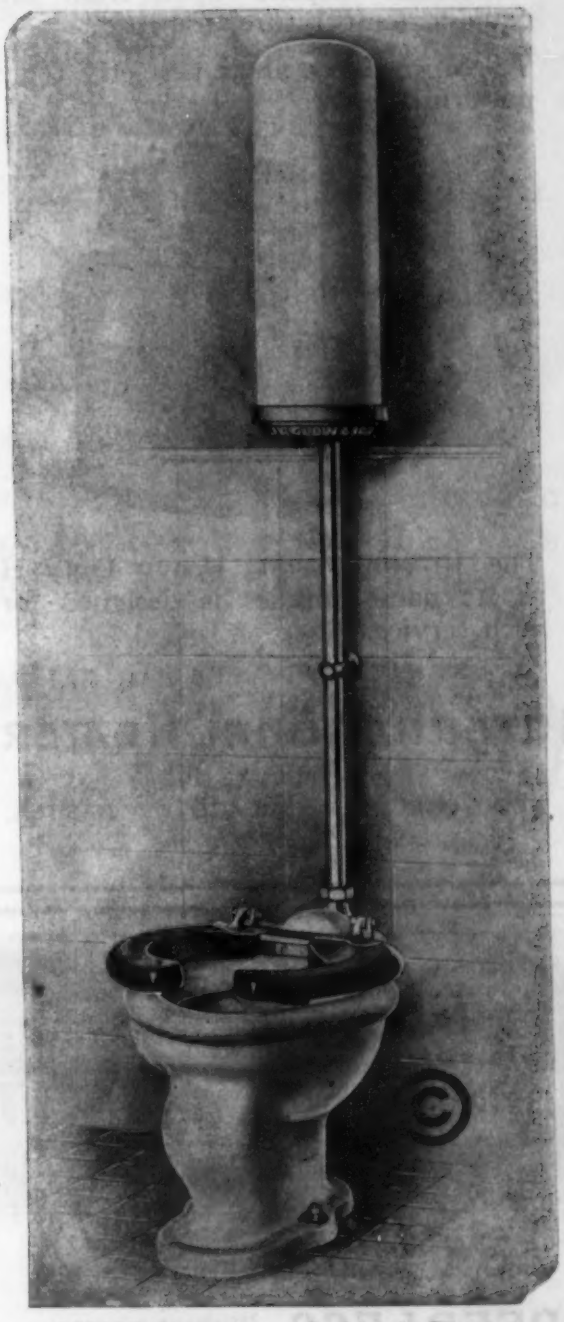
because they have proven superior. In hundreds of schools from coast to coast Clow fixtures are giving most remarkable service and show interesting savings for school boards.

Clow Automatic Water Closets in actual use in one school alone showed a net saving of over 11,000,000 *gallons of water* in one year amounting to a money saving of over $650. And we can prove it.

Another school board found after using Clow Automatic Closets *for 20 years*, they had cost so little for maintenance and repairs, the amount couldn't be estimated. These same fixtures were in such good condition they were again installed in a remodeled building.

The Clow Hygeia Bubbling Drinking Fountain is germ proof, no metal can touch lips, no earthenware can be taken into the mouth — no sharp edges.

Especially recommended wherever children are because there are no loose parts. It is a safe sanitary fountain and like all



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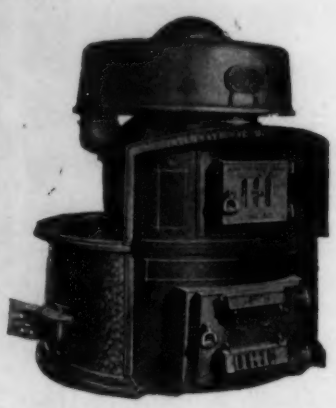

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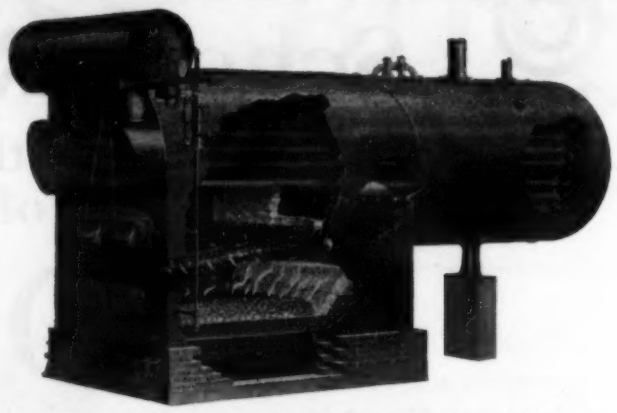

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KEWANEE Smokeless Firebox Boilers
burn soft coal without smoke.

A smoking chimney is proof positive that at least 20% of your coal is being wasted.

Thousands of KEWANEE Boilers installed in schools throughout the United States and Canada are saving coal and giving satisfaction in every way.

Are you going to build a school this year?
Then write for KEWANEE "On the Job"—it tells why.

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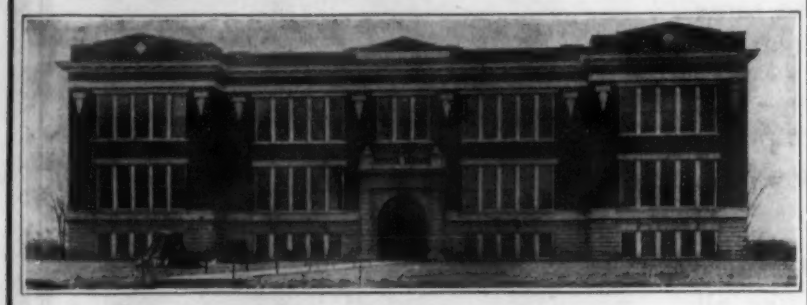

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Walter G. Frank, Architect, Utica, N. Y.

PEERLESS —Without a peer—
—Without an equal.

We lead—let those who care to, follow.

EVERY progressive step in the science of Unit Heating and Ventilating has been made by the Peerless Unit Ventilation Co., Inc.

Extravagant claims read well—*but*, the proof is the experience of those who pay the fuel and operating costs. Write to any school where the PEERLESS UNIT SYSTEM is installed and get the benefit of their knowledge of its results. A list supplied on request. Catalog also, for the asking.

The features that make the PEERLESS UNIT SYSTEM without an equal are embodied *only* in the Heating and Ventilating Units manufactured by us.

We stand squarely behind every installation with a cast-iron guarantee.

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Our engineering staff is at your disposal.

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School Rooms Should Not Be Swept

The way to remove dust is to ***remove*** it — not to *scatter* it with brooms, brushes, feather dusters, etc., which simply spread it through the air. Dust-filled air is nearly as great a menace to the health of pupils as impure drinking water. Read in last month's JOURNAL, our full page advertisement giving a list of schools equipped with the

TUEC
Stationary Vacuum Cleaner

We are installing TUEC Vacuum Cleaning Systems in old school buildings all over the country. If your school has none, it does not need any other improvement so *urgently*. We furnish free engineering service for installation, and would be glad to send full information to anyone interested.

United Electric Company
CANTON, OHIO

A New Building?

In selecting or approving the plans of the architects for your new building remember that the heating and ventilating is after all the most important feature.

It is not only **IMPORTANT**, it is **VITAL.**

On the quality and efficiency of your heating and ventilating systems depends:

First--The health of pupils and teachers.
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Third--The efficiency of the teachers.
Fourth--The economy of your operating expenses.

Coal is higher than ever before and every year it costs a little more.

No system of heating and ventilating is complete and adequate without automatic temperature regulation. ***The Johnson System of Heat Control*** is dependable. The Johnson Company offers the best grade of apparatus and the highest grade of service.

Johnson Service Company

Milwaukee, -:- Wisconsin

(Offices in all large cities)

ADMINISTRATION NOTES.

The Minnesota State Board of Control has announced a series of summer courses in mental deficiency to be given at the Faribault School for Feeble-Minded. The faculty for the special school will include J. Harold Williams, director of research in the state school at Whittier, Cal.; Bertha M. Luckey, chief examiner in the psychological clinic in the public schools of Cleveland, O.; Meta L. Anderson, supervisor of defective classes at Newark, N. J.

Masonville, N. J. A ten-month school term is proposed for the schools. The longer term is favored by the school children.

Springfield, Ill. The child welfare committee of the women's council of defense has cooperated with the several clubs and social organizations in the matter of providing scholarships for children who are unable to finish their school course. Financial aid is to be provided by the citizens and the board of education offers to furnish books and supplies.

Thief River Falls, Minn. The board has established a kindergarten, to be opened with the beginning of the next school term. It is planned to offer a half-day session for children on one side of the town and a similar half-day for those on the other side.

Fifty per cent less permits were issued to boys between 14 and 16 during the month of April, 1919, than during April of the previous year, according to a recent report of Mr. Frank J. Sessions, Supervisor of employed minors at Davenport, Ia. Mr. Sessions showed that during 1919 there were only sixteen permits issued, as against 33 in 1918. The war period which caused large numbers of minors to leave school and enter employment resulted in a big increase of permits during the four month period from July to November.

An ill effect of the war demand has been the fact that many boys who left school to work are reluctant to work at present wages and are inclined to idle their time rather than to return to school or to accept the readjusted and reduced wages.

The back-to-school campaign inaugurated by the government has been effectively carried out in Davenport thru the cooperation of the parent-teachers' association. As soon as a pupil gives notice that he will leave school, a notice is sent to the chairman of the parents' association in the district in which the child lives. The chairman then visits the parents and argues with them the importance of keeping the children in school. Thru this means many children are kept in school and parents are made to realize the importance of giving their children the best education they can possibly afford.

Mr. Sessions points out that the intermediate schools have a wholesome effect in keeping children at their studies. Pleasant environment results in a deeper interest in school work and a more rapid advancement.

The school board of Des Moines, Ia., has worked out plans thru which it is proposed to have a comprehensive truant system. It is the purpose of the board to combine the employment department with the truancy department and to place in charge a man who is peculiarly fitted by temperament and training for the position.

Constructive investigation and cooperation in the schools of Portland, Ore., together with their general progress, were thoroly discussed by the citizens' committee of one hundred at a recent organization meeting. Three matters which the committee has in hand for immediate attention are the investigation of problems relating to the bond issue, the teachers' salary question and the impending election of a school director.

Among the suggestions relative to the scope of the committee's work which were presented by various members were the following: The presentation of constructive advice and assistance to the school board, a publicity campaign, designed to awaken public interest in the public schools and their needs; the direct discussion of school children and their educational requirements; the appointment of sub-committees to prepare reports, after thoro investigation, on various phases of school affairs.

The meeting was completely harmonious, tho slightly vague and inclined to generalizing, owing to the fact that it was but in the formative period. Speakers laid stress upon the fact that they are not inclined to criticise, but that they feel certain there is room for improvement in Portland's school system, and that it is their purpose as citizens to render such service as their findings indicate the need for.

The charge was made that a school survey, taken several years ago, has never received the attention that its recommendations merited, and that not one of those recommendations ever has been placed in effect. This survey, it was suggested, might form an admirable base from which to begin operations.

Tho the central labor council deemed it unwise to join with other civic organizations in the committee, by direct representation the committee of 100 bears the names of several prominent labor men. Oscar W. Horne, elected member of the executive committee, is one of these. Others are: Mrs. L. Gee, Frank Hannan, Clint P. Holgate, George Howell, Ray McGinnis, E. E. Pettingill, H. A. Rice and Eugene E. Smith.

PERSONAL NEWS OF SUPERINTENDENTS.

Supt. Charles F. Limbach of New Philadelphia, O., has been re-elected for a five-year term.

Mr. H. E. Waits of Princeton, Ill., has been elected superintendent of schools at Ludington, Mich., at a salary of $2,600.

Supt. Arthur F. Harman of Selma, Ala., has been re-elected for the next year at a substantial increase in salary. Supt. Harman is entering upon his twelfth year of service at Selma.

Mr. W. F. Dykes, a well known educator in Georgia school circles and formerly principal of the Boys' High School at Atlanta, Ga., has been elected superintendent of schools to succeed J. C. Wardlaw. Mr. Dykes who was elected to fill the unexpired term of Mr. Wardlaw ending September first, was re-elected for the full term of one year at the regular May meeting of the board.

Prof. Dykes has been connected with the Atlanta schools for more than twenty years. For eleven years he was principal of the Boys' High School and for the past several months he has been connected with the Fulton County High School System.

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THE YPSILANTI SCHOOL DECISION.

Thru a recent decision of the Circuit Court of Ypsilanti, Mich., the color line in the schools has been eliminated with the order to close the Adams Street School and to provide other accommodations for the two hundred colored children who have attended it in the past.

The city of Ypsilanti has a colored population of approximately eight hundred persons who live in a segregated section of the first ward. In this ward there is a school population of 431 of whom two hundred are colored children. The Adams Street School which came into existence several years ago, has continued to exist thru the desire of the white population and by sufferance of the colored race. During the past few years efforts had been made by the school authorities to make the school function in the life of the colored population and some opposition had arisen. The trouble culminated last summer when the board submitted a proposition to the voters of the district for a new building to serve the school and the community. Led on by outside influence, the colored people voted against the proposition which resulted in the failure of the project and the subsequent litigation in the court.

In the suit brought by Walter Robbins and Herman Kersey against the board, the plaintiffs contended that the Adams School was being maintained by the board in an insanitary condition, and that it was without proper sewage, light and heat. They also contended that the school was conducted as a separate school for the colored children of the surrounding district who had not attained a higher grade than the sixth.

In making its decision, the court acknowledged that sufficient evidence had been submitted to show that the school in its present condition was insanitary but it also pointed out that the board had done what it thought best for the colored children and that it had gone a long way in hiring efficient teachers and in improving the civic conditions of the community.

The important question, in the court's judgment, was whether the school was being conducted by the board for the children of negro parents of the ward in such a way as to compel the children, because they are colored, to attend the school, and at the same time to permit white children of the district to attend ouside schools.

The court maintained that the maintenance of the school was an act of discrimination against the colored children and that in view of the provisions of the Michigan law, it was a violation of the common law of the state and of the statutes of the state. The court cited a number of important decisions from Supreme Court cases to support its contention that all residents of a state have an equal right to attend any school and that they may not be discriminated against because of race or color.

The court in rendering its decision ordered that the school be kept open for the remainder of the present term in order that the pupils might receive the proper credits and that at the end of that time it be discontinued.

BUSY SUPERINTENDENTS.

The Sutherland Courier, at Sutherland, Ia., in a recent issue, devoted a page and a half to the work of the schools during the past year. The article was intended to be a means of publicity for school patrons and taxpayers and to show the patriotic work undertaken by the pupils during the period of the war. Among the subjects covered by the article were conservation of health, classification and progress of pupils, measurement of children's achievements, and cost of school maintenance.

The superintendents, supervisors and teachers of the country have been asked to cooperate with Mr. Otis W. Caldwell and Mr. S. A. Courtis, in a plan to determine how well American school children of the present day can answer certain examination questions originally given in the Boston school in 1845. The report which was made by the school committee at that time is sufficiently detailed to permit of interesting comparisons in history, geography, arithmetic, grammar, vocabulary and natural philosophy.

Altho not all of the questions are considered valid for school work of the present day, it is planned to make a selection of about thirty questions suitable for eighth grade children and to provide about 50,000 copies of test papers, instructions and other material. Thirty thousand of these will be distributed, gratis, among representative cities of the country and the remainder will be sold at cost to those who will return copies of their results for the general tabulations.

The tests will be given between May 15th and June 1st and will require about one hundred minutes of class time. Scoring and tabulations are simple and will take from four to eight hours depending on the size of the class.

School officials and teachers who are interested in obtaining these questions should address Mr. S. A. Courtis at 82 Eliot St., Detroit, Mich.

Supt. John P. Garber, in a recent article, discusses the classification and care of handicapped children as carried on in Philadelphia schools. Supt. Garber points out that such children may be divided into two classes, those who may be trained to live an independent life with normal people, and those who will always have to live under the guidance and care of others. Philadelphia has special classes for the training of anaemic and undernourished children, classes for crippled children and still other classes for those recovering from illness, those who are retarded because of frequent change of residence, and those who are classed as truants or incorrigibles. At present, no provision has been made for the deaf, blind, semi-blind and those with special defects.

Supt. Garber points to the pending bill in the legislature providing for state aid for each school district undertaking the establishment of classes for the handicapped and urges that public-spirited citizens give their support to the measure.

The Central California Schoolmasters' Club, at its annual meeting in Fresno, Cal., on April 25, adopted a resolution recommending that citizens in general, and school officials in particular, take action designating each new school building erected during the next year as a memorial to heroes of the world war. It is intended that the buildings shall be erected with this idea in mind and that they shall be dedicated to the men who offered their all in the cause of freedom and as a living inspiration to the youth of the community. Mr. Cree T. Work introduced the motion.

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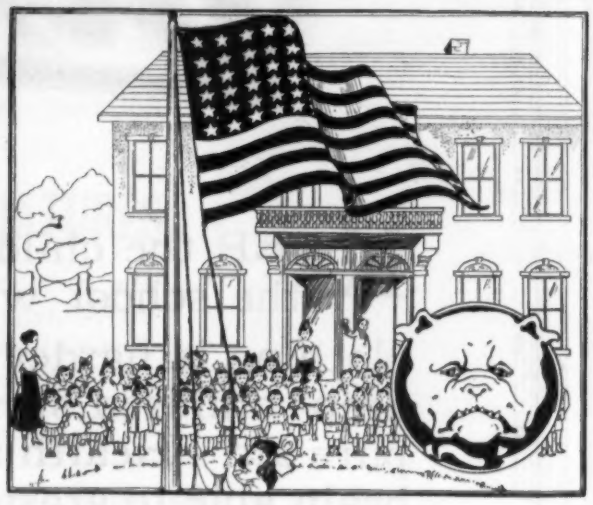

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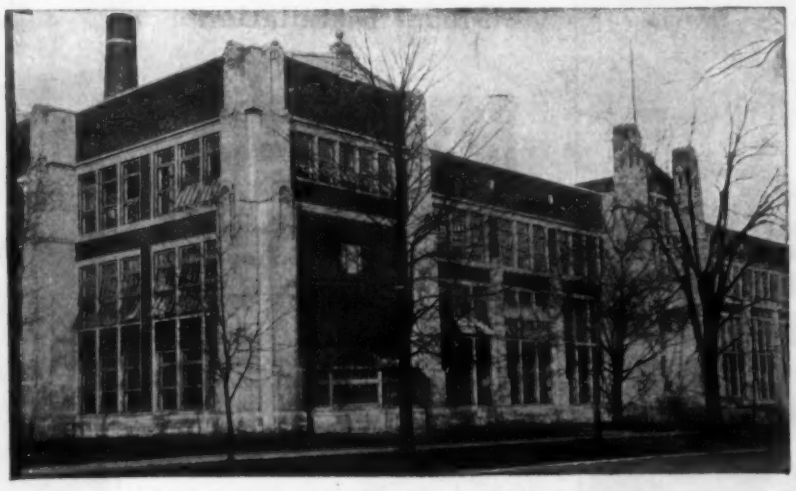

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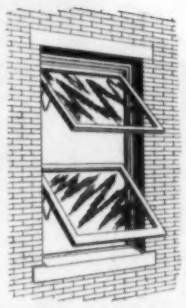

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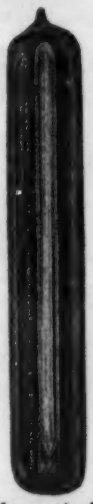

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SCHOOLROOM HYGIENE AND SANITATION.

Beverly, Mass. Of 2,947 pupils in the schools, the school physician has found 2,375 who need dental treatment.

Cincinnati, O. The health department has cooperated with the board of education in the establishment of child-welfare stations in the schools. The board has designated a number of schools which will be used as distributing centers for fresh milk and ice and also as clinics for children of the district.

The local chapter of the Red Cross at Toledo, Ia., has engaged a nurse for instruction and inspection purposes in the schools of Toledo, Montour, Garwin and some rural districts.

The anti-tuberculosis Society of Oklahoma City, Okla., has asked the board of education to include in each new building erected a well equipped open air classroom. To date, the board has not included such rooms and the local society has under its care about 150 children who are in need of open air treatment.

Wilmington, Del. The board has included in its budget appropriations for school nurses and medical inspection.

School medical inspectors of St. Joseph, Mo., recently conducted a semi-annual inspection of the pupils. The inspections were made in all grades from the second to and including the eighth and were carried out with the aid of a number of volunteers from the medical profession.

Tulsa, Okla. An open air school has been opened. The children are housed in two tents.

Portland, Ore. The school board has placed the school lunchrooms on a business basis and has issued a call for bids from persons experienced in running lunchrooms. The change has been made in the interest of economy and efficiency in the lunchroom service and of better all-around service from domestic science instructors.

State Supt. E. G. Gowans of Utah has addressed letters to the county superintendents of the state relative to the provisions of the recently enacted physical education law. Dr. Dowans has outlined the plans of the state board regarding the department of health education and child welfare provided under the bill and has urged that every district that can possibly do so, secure the full-time service of a well-trained physician.

The University of Utah will offer a summer course for health supervisors and nurses. In this way it is planned that any school supervisors who are not fully qualified can take the special work at the university before entering upon their tasks.

Flint, Mich. The board has appropriated $10,000 for dental clinics and health purposes for the next school year. It has been pointed out that thirty per cent of the school children have diseased tonsils and more than ninety per cent have dental defects.

The first test of the work in education for child health and development has been begun at the Plainview School, near Springfield, Mo., by the State Association for the Prevention of Tuberculosis. Inspections will be made of the eyesight, hearing, height and general physical development and a report will be made to the parents.

Chicago, Ill. Eight additional penny lunchrooms have been opened in the schools. The additions make a total of forty.

A recent report of the school medical inspector of Nashville, Tenn., shows that the free clinic has done spendid work during the past year. The clinic was opened in 1914 and has a staff composed of white doctors, a white dentist and a white nurse, and two colored doctors.

The report shows that during the past year there were 4,756 examinations and treatments. There were 916 medical operations and 4,206 dental treatments. Two hundred and eighty-five children had defects of the eye, ear, nose or throat, 35 had contagious diseases and 234 had dental defects.

A study of the children of the Taylor School, Cambridge, Mass., recently revealed that 32 per cent were undernourished. As a result of the investigation the children were placed in charge of a committee which provided warm, nourishing food on arrival in the morning and at the noon meal. All the children made gains of from one-half to one pound a week.

SCHOOLMEN'S WEEK AT THE UNIVERSITY OF PENNSYLVANIA.

The Sixth Annual Schoolmen's Week Convention held recently at the University of Pennsylvania, exceeded all records for attendance and interesting discussions. More than two thousand persons from all parts of the state and adjoining states attended the meetings and the registration exceeded by 25 per cent any previous record.

The program was distinctly constructive. Among the most notable features was the report of the Bureau of Educational Measurements of the University, presented by Dr. Harlan Updegraff, Director, and L. A. King, Assistant Director. The announcement that the Bureau has superintended the giving of 200,000 tests in arithmetic and 70,000 tests in silent reading in the schools of Pennsylvania since September, 1918, made a deep impression upon the visiting schoolmen. Not only was this department of the University's School of Education warmly commended, but a more extensive use was urged of this system. Of tests in arithmetic, 100,000 were in Philadelphia.

The formulation of a forward state educational movement was another important outcome. It included increase in salaries; higher standard of teachers and teacher training; improvement of rural schools, including consolidation and a careful consideration of the county unit. The features of most immediate significance in the proposed forward movement in education were the high standards set for the new superintendent of public instruction and the resolution in favor of a state survey. A feeling that the new state superintendent must be protected from interference by political, industrial, financial or other selfish interests was strong.

Another important contribution was the code of professional ethics. It was the product of a committee of five, working under the chairmanship of Dr. George G. Chambers, director of admissions of the University, during the past two years. The committee studied copies of many of the other professions and the digest of the professional codes of teachers in various states and cities, presented by Dr. Bagley upon the school-

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men's week program two years ago, at which time the movement for the professional code in Pennsylvania was started. The code as approved was forwarded to the president and the executive committee of the Pennsylvania State Association for inclusion in the program of the association next December.

Among the reports of studies already under way and which will be further continued were: (1) studies in the field of educational guidance, under the direction of Dr. Arthur J. Jones, and his seminary class in secondary education, and (2) consolidation of schools by Dr. George H. Becht, and a committee of five county superintendents, with Thomas A. Beck, superintendent of Chester County, as chairman.

Among a large number of speakers from outside the state were: Dr. P. P. Claxton, Commissioner of Education, Washington, D. C.; Dr. George H. Betts, School of Education, Boston University; Dr. W. S. Monroe, School of Education, University of Indiana; Dr. William H. Kilpatrick, Teachers College, Columbia University; Dr. Henry C. Morrison, State Board of Education, Hartford, Conn., and Dr. Thomas H. Briggs, Teachers College, Columbia University.

The chief executive officers of the meeting were Harlan Updegraff, chairman of the general committee, Arthur J. Jones in charge of secondary school conferences, and L. A. King, secretary.

AMONG BOARDS OF EDUCATION.

Marion, Ind. Traffic warning signs have been placed near the school buildings to protect the school children from speeding automobiles.

Louisville, Ky. The school board has adopted a policy to continue dancing in the schools so long as conditions are satisfactory. An inspection visit by a committee of three reported that surroundings were satisfactory and that moral protection was afforded by the presence of parents and other adults.

With the significant warning, "Don't intrust a faithless and autocratic school board with more funds," Mr. Frederick P. Gruenberg, head of the Bureau of Municipal Research of Philadelphia, spoke before the City Club on the need for an elective and smaller board. He criticized the board members for their indifference to the wishes of the public and for their attempt to tyrannize. Mr. Bruce M. Watson, secretary of the Public Education Association, another partisan of the smaller board, also spoke before the members of the Club.

A complete reorganization of the Pennsylvania State Department of Education is to be effected following a survey of the school system by a legislative commission. State Superintendent George D. Strayer, who has just been appointed, will cooperate with the commission and will be given power to effect the reorganization. The salary of the superintendent's office is to be raised to $10,000.

Members of the school board of Philadelphia have risen to the defense of Mr. Simon Gratz, vice-president of the board, who has been the principal object of criticism in an attack directed at the board by Dr. Lightner Witmer, professor of psychology at the University of Pennsylvania. Dr. Witmer charged that the board "permitted and encouraged the employment of personal influence" in the election of teachers and he asked that an age limit be fixed, beyond which no member may hold office. The board has nine members who are 65 or older and the average age for the entire board is 68½ years.

The board of education of New York City has undertaken an examination of the members of the Teachers' Union to determine their loyalty to the board and to the government. The investigation was ordered following a meeting at one of the school buildings where it is charged veiled threats were made against the board and the government. The investigation is being conducted by a committee consisting of Dr. John L. Tildsley, Dr. W. L. Ettinger, Wm. E. C. Meyer, assistant corporation counsel, and William Grady, secretary to Dr. Ettinger.

Muscatine, Ia. A system of supervised study and the possible establishment of a junior high school are planned by the board of education. A first hand study of the Joliet system has been made with a view to a modified form of the same in the local school system.

A "Save the Schools Society" has been formed at Chicago to counteract the activities of Mayor Hale Thompson in seeking to prevent the appointment of school trustees by direct vote of the city council. The new body is composed of representative citizens and is pledged to back the legislature in removing politics from the school system and in aiding the progress of the school children. Maj. A. A. Sprague, recently returned from military service in France, has been named as chairman of the organization and Maj. T. R. Gowenlock is executive secretary.

COLORADO SPRINGS SALARY SCHEDULE.

The school board of Colorado Springs, Colo., has revised its rules governing the salaries of teachers in high and grade schools. The average salary for the grade teacher next year will be $1,170 and experienced teachers will be paid $1,020 for the first year's service. The schedule which provides for four classes of teachers, reads as follows:

Elementary schools—Class D, teachers with less than eighteen months' experience, will receive $900 a year until recommended for advancement; Class C, teachers with eighteen months' experience and less than 27, will receive $930 a year until advanced; Class B, teachers with 27 months' experience, will receive $960 to $1,020 for the first year's service and until advanced; Class A, teachers with at least one year in Class B, will be advanced to $1,200 a year. No elementary teacher may be advanced more than $72 in any one year.

High School Teachers—No teacher may receive less than $1,200 for the first year's service and all initial salaries are to be determined by the board at the time of appointment. For special merit, an annual increase of $100 may be given until the maximum of $1,800 is reached. The board reserves the right to pay the maximum salary for the first year's work if the training and experience of the applicant justify it.

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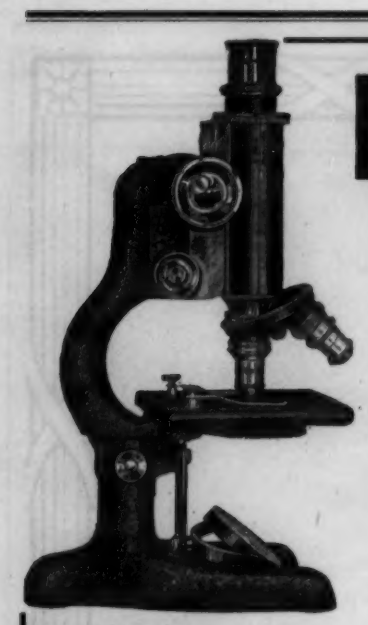

FS2 Microscope
Price $40.75

Bausch and Lomb Microscopes

are again in the market—backed by the prestige which attaches to successful war service in any significant capacity.

Our release from this service is of course gradual. As the demands made upon us by the government are lessened from month to month, however, we are enabled to increase delivery to our other patrons.

Write us for complete catalog of our revised microscope line and inform us regarding your requirements.

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Leading American Makers of Photographic Lenses, Microscopes, Projection Apparatus (Balopticons), Ophthalmic Lenses and Instruments, Photomicrographic Apparatus, Range Finders and Gun Sights for Army and Navy, Searchlight Reflectors, Stereo-Prism Binoculars, Magnifiers and other High-Grade Optical Products.

SPENCER BUFFALO U.S.A.

Spencer Delineascope

FOR PROJECTION OF LANTERN SLIDES

Has incorporated in it the **Spencer Transposer,** a patented mechanical means for handling the slides, which does away with the old cumbersome, troublesome lantern slides holder, which is a relic of a quarter century ago, and in addition gives a dissolving effect on the screen, which is accomplished with but one outfit only (not two). This is the only real stereoptican advance in twenty-five years. Its nitrogen filled **Mazda Lamp,** together with its many other advantages, make it ideal for school use.

SPENCER MICROSCOPES

Have incorporated in them many unique, meritorious and advantageous features which make them nearest ideal for high school and college general laboratory work.

Write for information concerning Microscopes No. 64 and No. 65.

Educational Discounts to Schools and Colleges

SPENCER LENS COMPANY

BUFFALO, N. Y.

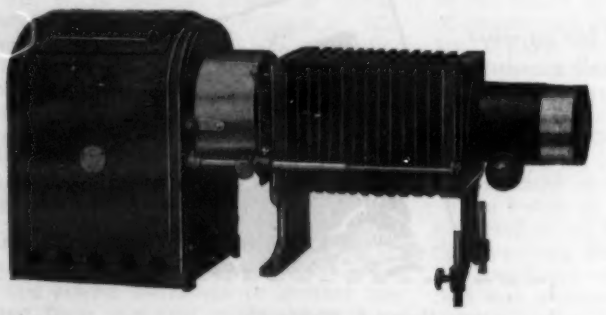
"McIntosh Lanterns are Honest Lanterns"

Every school needs

the equipment for visual instruction, and in the

McIntosh Automatic Sciopticon

finds the utmost of efficiency, remarkable simplicity and extreme utility, coupled with the automatic slide changer to produce an ideal classroom projector, which is also a perfect instrument for auditorium or assembly hall.



Price complete, with 400 Watt Silvered Mazda C Lamp, $48.00
Other Lanterns, $36.00 up

McIntosh educational slides are specially selected and arranged for practical pedagogy and embody the highest teaching efficiency.

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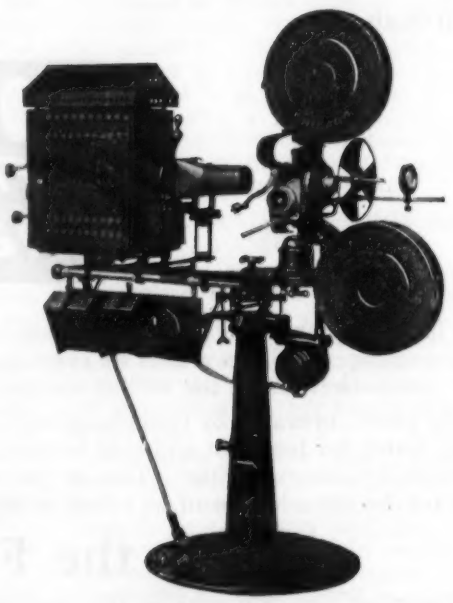

The "Motiograph"

Over 600 purchased by the Y. M. C. A. and schools in the last year makes it the leader. Its ease of operation—perfect projection—and non-wear qualities puts it in a class by itself.

(Will take all standard size films.)

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Its Merit is Proved by the Successes It Has Made

Holder for 13 years of the International Trophy Cup for

SPEED -- ACCURACY -- DURABILITY

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It is the machine for the operator--all World's Champions use and endorse it

The popular machine for tuition purposes

U N D E R W O O D

BUILDING AND FINANCE.

San Francisco, Cal. The board has asked the budget committee of the city board of supervisors to approve its 1919-20 budget providing for an appropriation of $3,908,125, or an increase of $1,099,480 over last year.

The school levy for Yakima, Wash., is expected to go above ten mills for the present year. The operating expenses for the school during the next year are estimated at $196,500.

The school board of Minneapolis is working out a building program which is intended to provide for the building needs of about 82 elementary and high schools. Some of the changes to be inaugurated will be the use of grade buildings for small children and the designation of one in every group for seventh and eighth grade pupils. A redistricting of the city is also proposed in order to adjust the school population to the accommodations provided.

The school board of Indianapolis has selected eight designs for grade buildings to be erected in connection with the grade school building program. The designs were selected from a collection of sixteen and were chosen by a process of elimination with all members present. Thru a study of the designs and a conference with the eight architects, it is proposed to select a standard design which will provide for lighting, heating and ventilation and for the best approved details of schoolroom arrangement.

Seattle, Wash. Preparatory to the carrying out of an extensive school building program, the school board has directed Mr. F. A. Naramore, its school architect, to prepare plans and specifications for a number of new buildings and additions to old structures and has asked the site committee to provide grounds for new schoolhouses. The work will include the erection of three new junior high schools and will make necessary an additional $3,000,000 bond issue.

The school board of Portland, Ore., has inaugurated a new system of building management to replace the present system of divided responsibility.

Under the new system, a caretaker is to be employed on a long-term contract. The caretaker will be responsible for the purchase of light, heat and water as well as for janitor service. No person may be employed more than eight hours a day or 48 hours a week, except in case of emergency. A minimum wage is to be fixed and double pay is to be allowed for overtime work.

Kansas City, Mo. Improvements on school buildings and erection of new buildings are to be undertaken as originally planned. The board has been assured that increases in teachers' salaries will not interfere with the proposed building construction, bonds for which were recently voted.

Salt Lake City, Utah. The school board has adopted a budget of $1,251,500, or an increase of $56,000 over the total of last year.

Decatur, Ill. The citizens have voted an additional levy of one per cent for school purposes, adding $50,000 to the school fund.

Atlanta, Ga. The school system is facing a financial deficit which must be relieved if the schools are to be kept open and up to the standard required. It is pointed out that the present funds are insufficient to conduct the schools until next January. Added to this are the demands from the teachers for increases in salary and the physical needs of the schools. The board is to discuss the situation and adopt a definite policy for the next few months.

Governor Cox of Ohio has vetoed the bill passed by the state legislature, permitting a five-year suspension of the Smith one per cent law for financial relief of cities and school districts. In vetoing the bill, the governor pointed out that relief should be afforded but that other methods of taxation should be used. He urged the enactment of an income tax as a means of providing financial relief.

PERSONAL NEWS OF SCHOOL BOARD OFFICIALS.

Mr. Andrew J. Siney, president of the school board of Muskegon Heights, Mich., for the past five years, died at his home on April 2nd. Mr. Siney was an enthusiastic worker for the school system and for the city in general. He had served as an alderman for four years and was Mayor of the city for two years.

Mr. A. E. Stewart has been re-elected supervisor of properties for the board of education at Detroit, Mich. Mr. David M. King, has been appointed to the position of Supervising Engineer.

Mr. Colon R. Eberhard, a member of the La-Grande, Ore., school board, was a member of the last State Senate and took a prominent part in the discussion of educational bills.

Dr. J. W. Campbell has been elected secretary of the school board at St. Louis, Mich.

Mr. C. M. Woodruff has been elected clerk-treasurer and business manager of the board of education at Akron, O., to succeed J. F. Barnhart. The duties of business manager have been added to the office to relieve the several committees of rsponsibility in the management of the school plant.

Mr. Henry W. Peterson, chief engineer of the school board at Bristol, R. I., has announced his resignation, effective with the close of the school heating season in June.

Mr. Harris W. Huehl, a member of the school board of Chicago, died at Grant Hospital on May 2nd. He was a member of the board at the time the "Solid Six" went into office and was reinstated when President Loeb resumed the affairs of the school board.

HIGH SCHOOL ADMINISTRATION.

The Minneapolis Junior High School Association held its first meeting in March. At the meeting a report was presented on the findings of a visiting committee which studied junior high school systems in eleven cities. The results of the committee's visit will be embodied in the plans for the three proposed junior high schools for the city of Minneapolis.

Atchison, Kans., will establish a junior high school system to take care of students from the seventh, eighth and ninth grades. The tenth, eleventh and twelfth grades will compose the senior high school.

Cleveland, O. The senior classes of the high schools have decided to appear in simple apparel this year. Central High School students have adopted a uniform graduation costume, while East Technical girl students will wear dresses made by them in the regular sewing class.

HIGHEST AWARD AT THE

CENTENNIAL EXHIBITION,
PHILADELPHIA, 1876.

SAN FRANCISCO
OFFICIAL AWARD BANNER

SAN DIEGO
OFFICIAL AWARD BANNER

When you see this trade-mark you can always depend upon superior quality.

TRADE MARK

Different numbers on the packages distinguish the different kinds of crayons.

TEACHERS AND ADMINISTRATION.

North Adams, Mass. The board has appointed a committee to investigate the advisability of dismissing married women teachers. It is charged that married women divide their time between the home and the school and that in many cases the latter suffers.

Hilldale, Mich. Every teacher in the schools has refused to sign a contract for next year until an increase in wages is granted. One member of the board opposes the increase.

The teachers of the San Francisco, Cal., schools have formed a union. The board has adopted a policy not to interfere unless the activities of the union work against the best interests of the schools.

A movement has been begun in Newark, N. J., to organize the school teachers of the state into unions affiliated with the American Federation of Teachers, which is connected with the national labor body. The federation which was founded in Chicago in April, 1916, has seventy unions thruout the country.

The Ohio College Teachers' Association, at the recent annual meeting in Columbus, adopted resolutions calling upon the legislature, boards of education, civic leaders and daily papers to urge young people to enter the teaching profession. The association pointed out the great shortage of teachers and commended the "socialized recitation" as a means of discovering teaching talent in pupils in the high schools and colleges.

The state of Texas is experiencing the worst famine of school teachers in its educational history. There has been a decided decrease in the number of candidates for training as teachers and the number of students who have registered for teaching positions is exceedingly small. It has been found that the main cause of the shortage is the withdrawal of the women teachers to other vocations because of the small salaries paid.

A test suit has been begun in the circuit court of Portland, Ore., by Mrs. Eugenia Taggart, formerly a teacher in the Lincoln High School, to recover $480 in salary based on the pay of a permanent teacher. Mrs. Taggart refused the salary offered by the board on the basis that she had taught more than two years and was therefore classed as a permanent teacher. The decision of the court will affect the standing of all substitute teachers who have taught more than two years.

Autocratic methods of certain school boards and the scandal of low salaries paid in the profession are held responsible for the growing tendency among teachers to form themselves into labor unions. At the present time the organization wave is moving forward with great rapidity, charters being issued by the American Federation at the rate of one every other day. The movement which began in the West and Middle West, is now spreading to the eastern part of the country. The American Federation of Teachers is affiliated both with the American Federation of Labor and the National Women's Trade Union League, and has a total of seventy local unions from coast to coast.

The aims of the national trade union organization of educators are democratization of the schools and fair working conditions for teachers. It insists on a voice in the government of the schools, (1) thru representation of the school boards, (2) thru teachers' councils in every school, consisting of chosen representatives of the teachers who should be consulted by the authorities on all questions affecting teachers or pupils, and (3) the election of school boards by popular vote. On behalf of the children, free discussion of public questions is asked in the classroom.

The summer session of the public schools of Detroit, Mich., will open with a probable enrollment of from 7,000 to 8,000 pupils. A large number of the students will be those who left school during the war period to work and who are returning to make up lost work.

Elementary courses from the fifth to the eighth grade will be given in seven schools and special courses for girls will be offered at the Burton School.

In addition to the regular work in the high schools, a junior college course is offered for the first time. Central High School will be opened to a body of from 250 to 300 students and the work will range from the fifth thru the twelfth grade in connection with junior college courses.

Alma, Mich. The board has given average increases of $250 to teachers.

Brooklyn, N. Y. The board has fixed the minimum salary of teachers at $1,000. Equal salaries are to be paid to men and women in grades 7A to 9B, with additional pay for boys' classes.

Marinette, Wis. The board has raised the salaries of teachers from twenty to 29 per cent.

Dubuque, Ia. A salary increase of $250 and a bonus of $100 have been given to each teacher in the schools.

Little Rock, Ark. The board has granted an average increase of somewhat more than seventeen per cent to the teachers. Teachers receiving the lowest salaries were given increases of 37 per cent and those drawing the highest salaries were given increases of ten per cent. The minimum salary has been fixed at $70 per month and the maximum at $1,200.

Duluth, Minn. The board has raised the minimum salary of teachers from $650 to $750 and has added a bonus of $10 a month for all teachers who complete their contracts. A maximum of $1,125 is provided for those who complete six years of service in the city schools.

The board of education at Fargo, N. D., has given increases of from $50 to $100 to teachers. An additional $50 is to be given to teachers, supervisors or principals who successfully complete six weeks' work in a summer school.

Flint, Mich. The board has adopted a schedule providing for an increase in the minimum from $750 to $850 in the grades and high school, and an increase in the maximum from $900 to $1,050 in the grades and from $1,200 to $1,350 in the high school. It is provided that the salaries of all teachers who remain for the next year will be increased by $50 for the year's experience.

Wakefield, Mass. The board has given increases of $50 to teachers.

Des Moines, Ia. The board has given increases of fifteen per cent to the teachers. In addition to the general increases, the salaries of sixty teachers have been raised to the amount of $3,650.

With the Miessner Piano, the Lesson "Gets Over"

YES, the teacher can get it literally "over the top." For this wonderful little piano stands only three feet, seven inches high—the teacher can look right over it, and each pupil can watch the teacher's every movement and expression.

A Miessner Piano on each floor in a school building means piano accompaniments for every room, because the Miessner weighs only about half as much as the ordinary upright—two small boys can easily move it from room to room—two men can easily *carry* it up or down stairs.

The Miessner Piano

"The Little Piano With the Big Tone"

The Miessner Piano is not merely a little piano—it is also a *better* piano. Teachers, supervisors and musicians who have heard it have been amazed at its volume and quality of tone, as big and resonant as that of a small sized Grand, and pure and sweet withal.

Costs Half as Much

Yet, with all these advantages, the Miessner Piano sells for just about half what you would pay for an ordinary upright. You can buy *two* Miessners and furnish music for a whole building, for the price of *one* of the large, heavy pianos. This is due to our "Factory-to-Schoolroom" plan of placing the Miessner in the schools of America.

Furthermore, we ship you your Miessner on ten days' approval. You can play on it and examine it to your heart's content, get your friends' opinions regarding it—before you pay a penny.

JACKSON PIANO CO.

122 Reed St., Milwaukee, Wisconsin

Chicago Office: 418 Fine Arts Bldg.

Mail the Coupon for Catalog

Fill out and mail the coupon now. You will not be obligated in any way, and you will be interested in learning all about our "Factory-to-Schoolroom" Plan of marketing this wonderful little instrument, which is destined to play so important a part in music education in America.

Jackson Piano Co.,
122 Reed St., Milwaukee, Wis.
Without any obligation on my part, please send me the Miessner Catalog and full information about your "Factory-to-Schoolroom" Plan.

Name .....
School .....
Position ..... State.....
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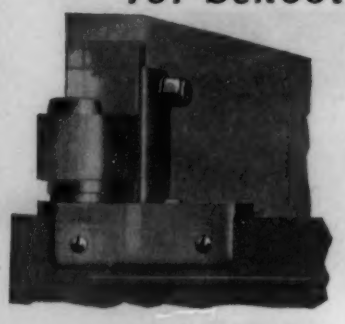
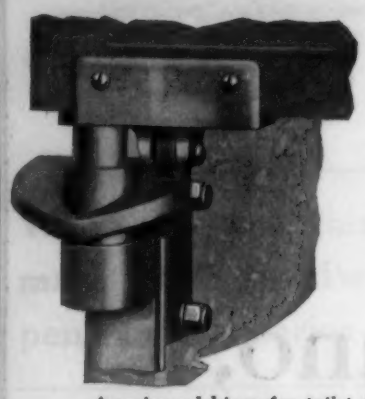
A Perpetual Hinge

for Schoolhouse Toilets





THE youngsters may abuse the hinges on toilet doors—at least they are certain to give them hard usage. The most economical way is to put in a hinge that will stand up under wear and tear.

Sanymetal

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GRAVITY ROLLER

HINGE

bases its claim to long life on the simple fact that it contains *nothing to wear out*. It's the *perpetual* hinge that *always* works.

A universal hinge for toilet doors of any material, and for office gates. No spring, no complicated parts to get out of order. The door closes on a roller, from its own weight, by force of gravity. Used on any type of swing door. Doors cannot sag nor slam. Inexpensive, trouble-proof, wear-proof Bulletins on request. We shall be glad to send to any architect a SANY-METAL hinge for test purposes.

THE R. F. CARPENTER MFG. CO.

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SEND FOR THIS PAMPHLET

—then with its aid plan your Domestic Science Equipment for next season.

HUGHES

DOMESTIC SCIENCE EQUIPMENT

is giving wonderful results and entire satisfaction in several hundred schools and colleges where it has been installed.

Your Domestic Science courses will be made doubly attractive by the use of electrical equipment.

The pupils will enjoy working in clean, cool class rooms, the danger of lighting matches, and all flames, fumes and dirt done away with.

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CLEAN, CONSTANT, UNIFORM HEAT — NO FLAMES, FUMES OR DIRT

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Manufacturers of these four well-known lines:

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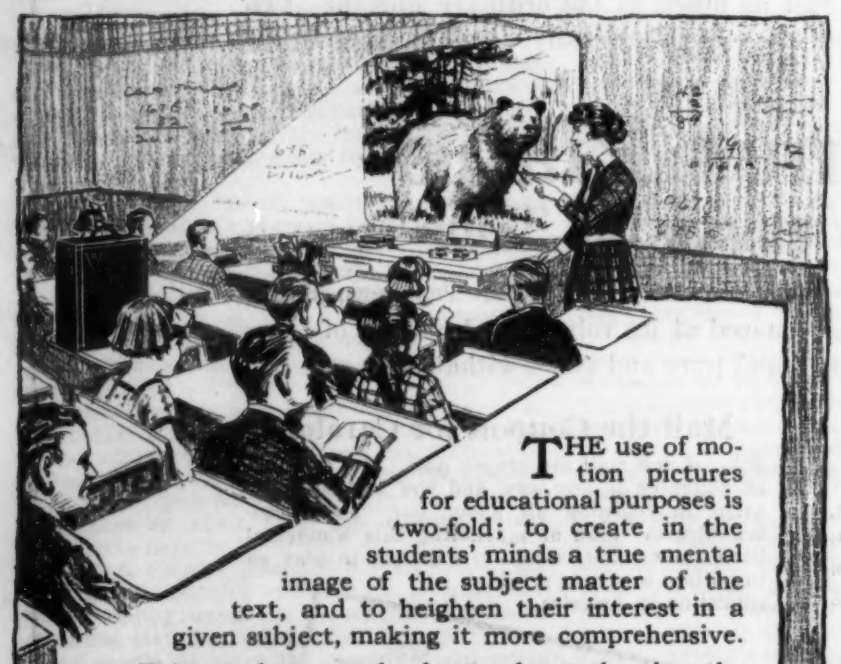


THE use of motion pictures for educational purposes is two-fold; to create in the students' minds a true mental image of the subject matter of the text, and to heighten their interest in a given subject, making it more comprehensive.

This can be properly done only at the time the subject is actually being discussed, i. e., in the classroom. It therefore becomes necessary to have a projector to meet the various conditions that may be imposed upon it. It must, above all things, be portable and as little complicated as any machine can be, requiring no special operator.

The DeVry Portable Motion Picture Projector is ideally suited for school use. It weighs but twenty pounds—takes standard size reels and film—attaches to an ordinary light socket, and operates at the touch of a button.

A catalog, giving complete specifications, will be sent upon request.

The DeVry Corporation

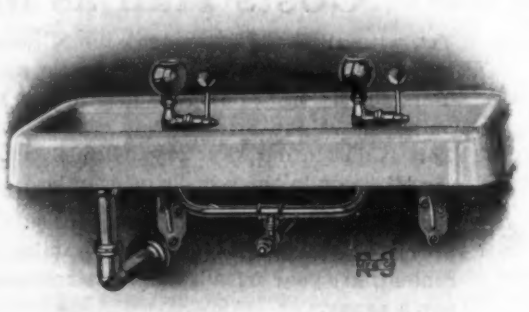
1248 Marianna St. :: Chicago, Ill.

Keep the Drinking Water Pure

Safeguard the health of your children by supplying them with pure clean water and make it easy to drink without contamination.

Install Rundle-Spence Bubblers

Endorsed by superintendents and school architects and used in schools in all parts of the country.



Rundle-Spence bubblers are neat in appearance, perfect in construction, durable, fine enough for the most elaborate building and economical enough for the simplest structure. We have a variety of bubblers at different prices to select from.

A post card will bring our latest catalog by return mail.

RUNDLE-SPENCE MFG. COMPANY

52 Second Street Milwaukee, Wis.

Beery System Ventilation

"Diffuses Fresh Air Everywhere"

Provides a continual volume of pure air to all pupils in the classroom, improving their health and efficiency.

ASSEMBLY HALL, LINCOLN SCHOOL, ROCKFORD, ILL.
Note where pure air is diffused from the ceiling.

The sensational success of the Beery System Ventilation for five years in the schools of Rockford, Ill., has resulted in the formation of the "Beery Engineering Co.," so that this system of ventilation is now available for all schools.

The Beery Engineering Co. offers an expert consulting service to school boards and architects on all the details of ventilation.

Before you have plans made for your new school ask us to submit tangible facts showing improved health and efficiency results produced by this system of ventilation. The success of the Beery System Ventilation justifies you in holding up your present construction until you can obtain complete details.

BEERY ENGINEERING COMPANY 308 MEAD BUILDING ROCKFORD, ILLINOIS

THE OVERSEAS UNIVERSITY.

(*Continued from Page 55*)

two main divisions, vocational and general. The vocational training which is found practicable in virtually all divisions embraces carpentry, telephone repair, wire and wireless telegraphy, surveying, road construction, horseshoeing, automobile repair, cobbling, tailoring, barbering, cooking, baking and nursing. The general course covers such subjects as algebra, trigonometry, mechanical drawing, agriculture, salesmanship, economics, English literature, advanced French, Italian, Spanish, German, history, etc. Students may when their respective organizations are ordered to the United States, apply for transfer to other divisional educational centers for the purpose of completing courses. The size of these great secondary schools is indicated by the fact that the Eighth Corps school, comprising three divisions, is now attended by approximately 3,000 students.

The American Army University. For the purpose of providing for the needs of secondary school graduates, and in order to provide special studies for which there are not sufficient demand or facilities at the local schools, the Army has established a great central institution, the largest university in the English-speaking world. This is called the American Army University and is located at Beaune, in the department of Cote d'Or, southeast of Paris, and twenty miles south of Dijon. This university is established on the site of a great base hospital camp covering an area of two square miles, and having a capacity of 17,000 patients. The camp is divided into ten hospital units, each unit consisting of many buildings all of a semi-permanent character. Ten thousand students were already enrolled by the middle of April, and it is expected that the enrollment will increase to twenty thousand. An attractive library has been arranged with 30,000 reference books, and a reading room which will comfortably accommodate 1,500 students. Most friendly relations have been established with the citizens of Beaune who have equipped and donated a club for the use of the students. This great institution is under the supervision of Colonel Ira I. Reeves, formerly President of Norwich University and more recently in command of the 127th Infantry. The first term which opened March 11, 1918, and closed the latter part of May, will be followed by successive terms of three months each.

The University is divided into a group of colleges. The College of Agriculture embraces courses in animal husbandry, horticulture, agronomy, and rural culture and sociology. The college conducts a farm of 600 acres for practical instruction and demonstration and in addition an Army Farm School at Allerey, for students who are not sufficiently advanced for the University. Over 1,000 are in attendance and about 250 acres of land are available for practical work. The College of Arts conducts preliminary instruction at Beaune and a branch for advanced students at Bellevue, near Versailles. There is a large College of Engineering, Industry and Trades, including the civil, electrical, mechanical and mining branches, with laboratories and shops established in the former hospital supply quarters. The College of Letters embraces highly diversified instruction in economics, English, French, history, philosophy and political science. The College of Science embraces astronomy, chemistry, botany, geography, mathematics, hygiene, zoology, psychology and physics. In addition there is a College of Business, a College of Education, a College of Journalism, a College of Law, a College of Medical Sciences, and a College of Music.

Each student must carry at least three lectures or recitation hours and four and a half hours of study periods daily during five days of the week, Saturday and Sunday being free. Students attending the University have the option of returning to the United States with their organizations or of remaining to complete the term of three months.

Detail of Officers and Soldiers to French and British Universities.

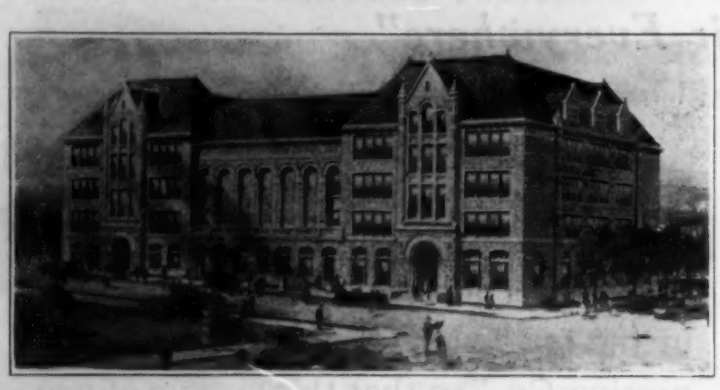
Thru the generous and loyal cooperation of the Allies arrangements have been made by which specially selected officers and men, who have already completed at least two years of university work, may be given detached leave for the purpose of attending a French or British University. Such men are organized in detachments with an officer in command of each detachment and a civilian director who acts as dean. The officers commanding these detachments are college men selected thru the University Union in Paris. Already about 10,000 men are availing themselves of this opportunity, 7,000 of whom are attending French universities and 2,000 British universities. Of those attending French universities 3,000 are attending the Sorbonne in Paris, including 400 in law, 650 in letters, 798 in science, and 150 in medicine. One thousand are attending the University of Bordeaux, 500 the University of Grenoble, and 200 the University of Dijon. Those attending British universities are divided approximately as follows: Oxford 200, Cambridge 205, London 725, Edinburgh 215, Glasgow 265, Sheffield 20, Bristol 21, Birmingham 75, Manchester 75.

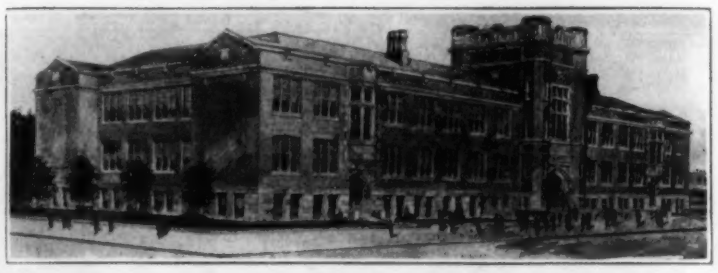
Reports show that these men on detached leave are eagerly interested in their work and popular in the communities in which they reside. In many cases they are carrying on sports, college papers, and other characteristic features of American college life.

Students entering French and British universities must agree to remain for the full three months' spring term. They receive commutation of subsistence at the rate of two dollars per day and reimbursement for lodging not to exceed one dollar per day. The fees amount to 250 francs for full work, this amount to be paid by the student.

Miscellaneous. In addition to the four main divisions of the work outlined above there are various additional activities providing greater flexibility and attention to special needs as they arise. Agricultural institutes lasting three days are held at various places. Similar institutes are also held for intensive instruction in citizenship. The first of these began in Verdun on March 26th. The troops were brought in by their Commanding Officers in groups from 200 to 500; speakers presented problems of public health, community betterment, economic relations, etc. Exhibits and motion pictures were used to enforce the lessons.

The Meaning of Repeat Orders to School Boards





THE school building on the left was built and used a number of years before the school on the right was built. Both buildings are in the same city and designed by the same architect, but contracted for by different School Boards.

Both buildings have installed in them "The American System" of Mechanical Heating and Ventilating. Complete satisfaction with this system in the original building led to its adoption in the newer building.

Write for List of School Boards and Architects in your vicinity who have used "The American System." We have Contracting-Engineering offices everywhere.

THE AMERICAN HEATING & VENTILATING CO.

200 North Fifteenth Street, Philadelphia, Pa.

Emphasis is also being placed on Vocational Guidance. A group of experts is stationed at Le Mans, where most of the troops are quartered for some time before sailing home. Here everything possible is done to supply soldiers with information regarding the industrial situation in America, and to give the men personal advice as to trades and occupations.

A Correspondence College has also been established, thus extending to soldiers that do not leave their posts a larger opportunity for specialized instruction in such subjects as salesmanship, farm management, mathematics, history and mechanical engineering.

Results.

There appears to be no doubt of the favorable effect of this work upon the spirit and contentment of the men themselves. Tens of thousands of men are already busily engaged in their studies, happy in their new surroundings and activities, and freed from their former feeling of restlessness and disposition to complain. There can be no doubt of the further fact that these men are obtaining educational benefits which will return them to civil life better equipped for their old jobs or newly equipped for better jobs.

The indirect values to be realized from this work are more speculative, but certainly not less significant. Students who are pursuing advanced studies at Beaune, Bellevue, Allerey and at the French and British universities are establishing cordial relations with their neighbors that cannot fail to contribute to the future friendship between America and her Allies. This same effect is obtained in a lesser degree from the work at the Army posts and divisional centers. Whatever improves the morale of the American soldier abroad increases his sympathy and consideration for the people among whom he lives. This has already resulted in a disposition to forget minor grievances and to assume a kindlier and more friendly attitude.

The work has also an important influence on the soldier's attitude towards his own government and national life. In proportion as he recognizes that his country has created these opportunities for him, his gratitude and loyalty are increased. As one of thousands engaged in this great work he is filled with a new interest in the problem of social betterment and reconstruction. He learns that the same spirit of team-play, the same organization and leadership which have made the country powerful in war may be utilized for peaceful and constructive purposes. He will thus be helped to take back with him to civil life that which is best in the military organization, and to preserve the same spirit of service which actuated him in the performance of his military duties.

It may be added that this work is in line with the idea which is now gaining so wide an acceptance, that the Army should be thought of as a great national school, which while it is immediately charged with responsibility for the national defense, may at the same time impart to its members fundamental physical, intellectual and moral qualities that will contribute positively to the vigor and soundness of the national life.

PATRIOTIC RECORD OF THE ANTIGO SCHOOLS.

The city schools of Antigo, Wis., during the two-year period from 1917-1919 rendered a distinctive service to their country in helping to win the war by accomplishing the following results.

All the children participated in the activities and the work covered a wide range including gardening and food conservation, Red Cross work, purchase and sale of bonds and thrift stamps, and volunteer clerical work for the various patriotic and relief societies.

The pupils of the schools raised $394.35 to carry on the work in gardening and were helpful in promoting the propaganda for the conservation of food.

The Red Cross work was undertaken by teachers and pupils, with the superintendent acting as chairman for the work of the entire county. Each pupil took out a membership and was active in sewing, knitting and the making of garments for war relief. The manual-training classes made ten taborets for the hospital at Des Moines.

The Liberty Loans and war savings campaigns were promoted thru the solicitation of pupils and teachers and thru activities in and out of school, the making of speeches and the drawing and exhibition of war posters. A total of 1,055 pupils own war savings stamps estimated at $22,831, while 427 own Liberty Bonds reaching a total value of $59,645. All of the teachers bought freely of war savings stamps and Liberty Bonds.

MISCELLANEOUS EDUCATIONAL LAWS.

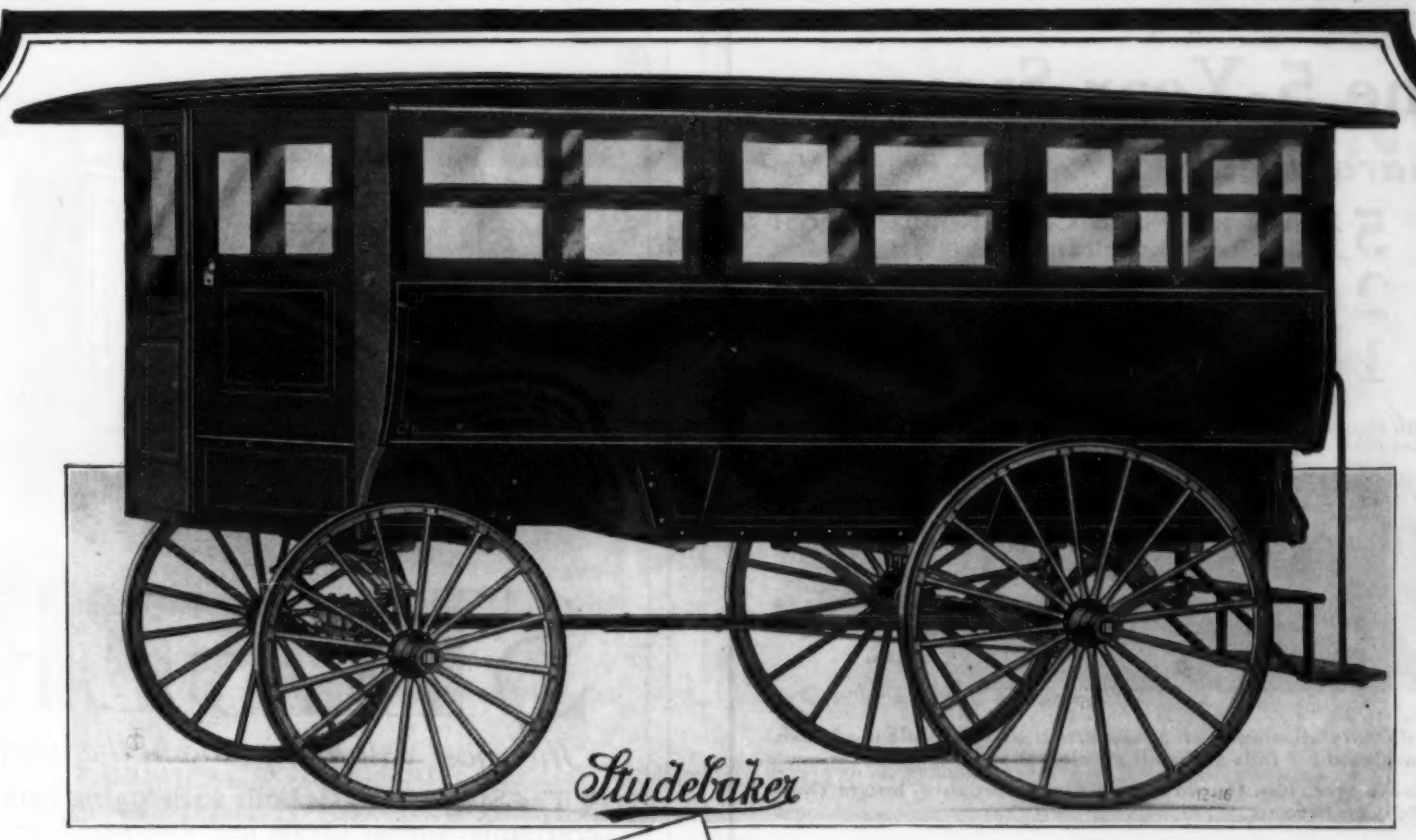
Governor Goodrich of Indiana has signed the teachers' minimum salary bill, providing for the minimum salary based on the factors of 3¾, 4½ and 5 for the various grades of teachers. The scholarship percentage of the teacher is multiplied by these factors to obtain the daily minimum wage. The law is of special benefit to teachers just entering the profession and to those in communities of the state where the salaries are low.

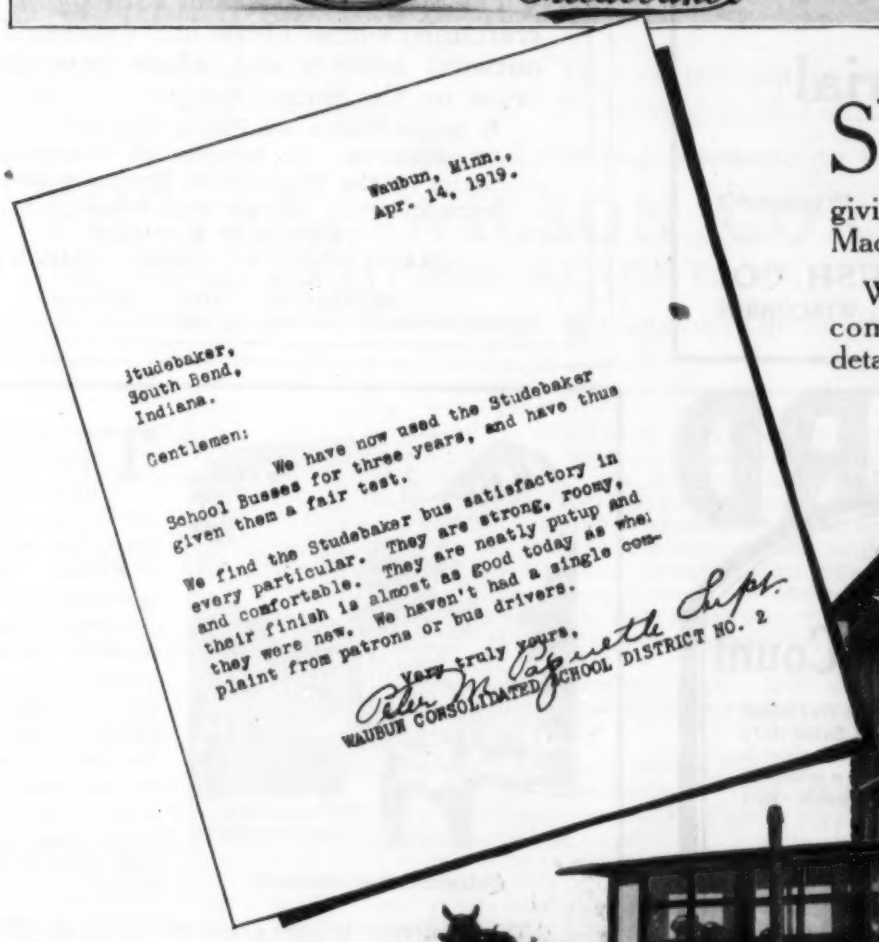
The Colorado State Senate has approved the Baker bill providing for increased salaries of teachers and for a fund of $150,000 with which to insure increased minimums in the poorer as well as the financially strong districts. The bill provides that the pay of teachers other than substitutes shall not be less than $60 in districts of the third class, and not less than $75 in districts of the first and second classes. At present a straight minimum of $50 is provided in all districts.

The Pennsylvania House has passed the Davis bill, prohibiting the teaching of German in the public schools.

The Iowa senate has passed a bill providing that when the number of pupils in any rural school shall fall below five, the school may be discontinued and the pupils transported to the school nearest the district.

The Colorado House has passed a bill providing that notice of school elections must be posted twenty days previous to the election instead of six as formerly. A second bill provides that notice of bond election must be given in the same manner and for the same length of time as that required for regular school elections, and that judges, clerks and polling places for bond elections shall be the same as for regular elections.





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Mr. Paguette's letter, reproduced above, is only one of scores of similar testimonials we have received from enthusiastic school boards throughout the country. Studebaker School Busses are built by men who know — that's why they make good under every condition of service.

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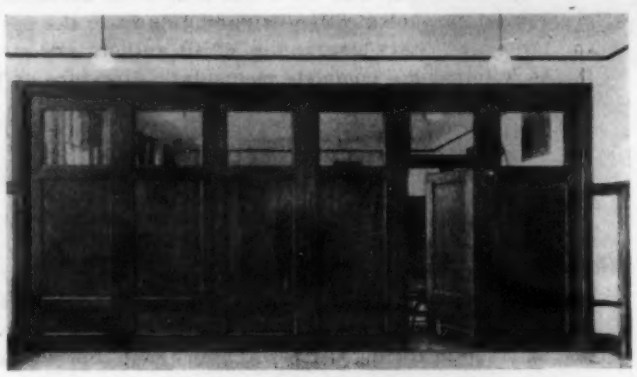

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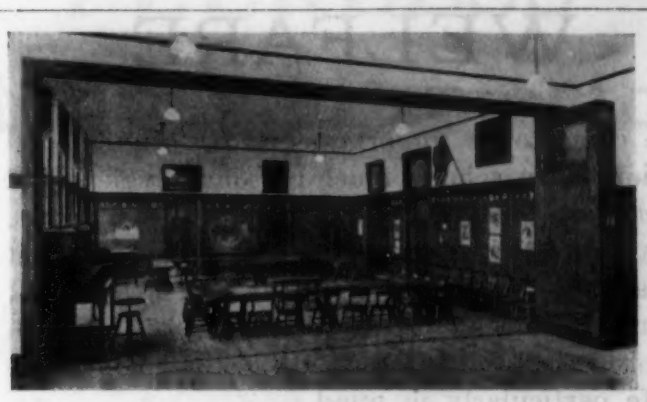

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NEW BOOKS

The Elementary School Inventory Book.

Arranged by George D. Strayer and N. L. Engelhardt. Cloth, 111 pages. Book I. C. F. Williams & Son, Inc., Albany, N. Y.

Inventories are so indispensable to accurate school accounting that the school which has no annual record of its belongings may well be looked upon with suspicion. Despite the common recognition of inventorying, there have been until very recently few worth-while aids for keeping lists of furniture and supplies in compact, accessible form.

The present book consists of 112 pages and offers a very complete series of blank forms for listing and checking the materials, furniture and other equipment in principals' offices, teachers' rooms, kindergarten classrooms, cloak rooms, manual training rooms, auditoriums, cooking rooms, sewing rooms, lunch rooms, libraries, gymnasiums, nurses' rooms, corridors, janitors' rooms, lavatories and exercise rooms of grade schools.

It is adapted especially to buildings of twelve or less classrooms and affords space for ten annual inventories. The list of materials, equipment and furniture is exceedingly complete and in fact includes items, all of which any single building at present owns. The book should appeal especially to school authorities in the middle-size and small cities.

Walsh's Business Arithmetic.

By John H. Walsh. Cloth, 496 pages. Price, $1.20. The Gregg Publishing Co., New York, Boston, Chicago.

The business character of this textbook is shown in the contents of the first section. Here an account in single entry, an account in double entry and other business forms are offered as models for study. In following sections the variety of the problems under production and consumption is not often equaled. The same comment may be made with reference to the subject matter, statements and problems under different forms of business paper, bonds and stocks, ways in which the general government obtains its revenue. As is often the case, the metric system is given but scant space.

The book is large, almost heavy. Still, such an abundance of material affords an opportunity for selection.

The American's Creed and Its Meaning.

By Matthew Page Andrews. Cloth, 88 pages. Price, 50 cents. Doubleday, Page & Co., New York.

In a spirited and informing way, readers are told how the idea of the American's creed started, how it was carried out, and in what it resulted April 3, 1918.

This creed has been learned by millions of school children, has been posted on trees and trenches on the battlefront in Europe, while in America the Department of the Interior has provided for parallel versions in the languages of our foreign-born citizens. Extracts from the writings of Hancock, Jefferson, Madison, Washington, Webster, Lincoln, the constitution of the United States, give the principles and authorities on which this American's creed, of one hundred words, is based.

Essentials of Spelling.

By Henry Carr Pearson and Henry Suzzallo. Cloth, 196 pages. Part I, price 24 cents; Part II, price 32 cents. American Book Co., New York, Chicago, Boston.

This title is significant. It expresses the growing conviction that spelling should, first of all, concern itself with words frequently used, with words frequently misspelled.

In the regular lessons only about two thousand words are given, while supplementary lists contain more than one thousand words that are less important or less difficult. In giving more drill upon fewer words, waste of effort has been avoided.

Comprehensive reviews, rules for spelling, syllabication, pronunciation and carefully worked out directions for teachers are among the strong features of the book.

English Composition as a Social Problem.

By Sterling A. Leonard. 202 pages. Price, 70 cents. Houghton Mifflin Co., New York, Chicago.

The subject of English is in this book approached from a novel point of view and "will be radical in its reconstruction of teaching practice."

Its central idea is that pupils thru comparison, comment, criticism may not only discover omissions and errors in their own work but may gradually develop something better. The scattering talk of small children in a small class may be made definite by guiding it to some one incident. The speech of children is often fearful; still corrections should come in an incidental fashion—"We say it in this way." An advance step is a prepared story about a pet or an accident to which the class will be a keenly critical, tho kindly audience. The value of a limited subject, with concrete details, good grouping which may sustain or interpret a central thought, should next be learned. Grouping will first naturally follow a time order, tho the force of emphasis—putting a striking detail at the beginning, saving a significant one for the end—will be soon understood.

Each year such attention should be given to certain points under grammar, punctuation and spelling, pronunciation, courtesies in speech and manuscript form that they become automatic. The number of points under each head should be small rather than large, but the standard of attainment should be one hundred per cent. After several semesters of work the cooperation of a truly social class will make some principles and form such a mental possession that these may become tools for broader mental expression.

Textiles and Clothing.

By Ellen B. McGowan and Charlotte A. Waite. Cloth, 268 pages. Price, $1.10. Macmillan Co., New York.

(Concluded on Page 95)

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have come to be important matters of public education. Our schools teach personal hygiene and physical efficiency and *get results*—stronger bodies, brighter brains, better habits. Our schools must educate the neighbors also in good health habits. Several of the new Macmillan books for high schools have been written with healthy community life particularly in mind.

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By E. F. Fisher, Wellesley College

A full survey of the more important industries of the United States, for pupils of the upper grammar grades. The author points out the dependence of our industries on our resources, and hence the necessity of conserving our resources. She also shows our trade relations with other countries. The illustrations are abundant, including among other things an attractive colored frontispiece and several unique maps.

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For the 1919 edition of this standard history the closing chapters have been rewritten, with discussions of the war, our preparation for it and our part in it. Dr. McLaughlin, through his war service, is particularly well equipped to write this important new material.

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(Concluded from Page 93)

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In these days when the price of what we buy has made living a problem of the higher mathematics, this scientific information promotes not only personal economy but patriotic conservation.

The Kendall Series of Readers.

Primer, First Reader, Second Reader, Third Reader and Teachers' Manual. By Calvin N. Kendall. Cloth, 118, 137, 211, 292 and 248 pages, respectively. D. C. Heath & Co., Boston, New York, Chicago.

This series and the methods of teaching outlined in the teacher's manual stand for following so far as may be the natural order of development and of using the least possible drill. Too much can hardly be said in praise of the suggestions and specific directions given in the manual. Still teachers are often advised to be quick in catching hints from their classes and in making demands upon their own originality and personality.

The reading lessons in the first and the second reader may almost be called a continued story as the life of a brother and sister and that of their playmates is told with great spirit. The rhymes and bits of poetry are literary gems, while the illustrations are highly realistic.

Resources and Industries of the United States.

By Elizabeth F. Fisher. Cloth, 246 pages. Price, 80 cents. Ginn & Co., Boston, Mass.

An unusual book whose contents are based upon authoritative sources. Its clear style, its many maps and illustrations, its unusual questions, its statistical tables, its full index, enlarges and enriches the subject of geography and geographical reading. Everything centers upon man's chief needs—food, clothing, shelter. For this reason, chapters appear on soils, crops, fisheries, animal and vegetable sources of clothing, lumber, fuels, minerals.

The maps justify the author's opinion that they are modern and many of them unique. A better relief map is seldom seen. The soil map is the first of its kind for young people. Then there are maps showing where standard grains and fruits, cattle, sheep, swine, are made a specialty. Questions refer pupils to different maps or illustrations for facts there obtainable. From these facts they are expected to draw their own conclusions. Memory and reason are in this way trained.

Thruout the book, emphasis falls upon the necessity for conserving our natural resources—a need which we have only lately been compelled fully to realize.

Fabulas y Cuentos.

By Clifford G. Allen, with illustrations by Clarence Rowe. Cloth, 180 pages. Price, 88 cents. World Book Co., Yonkers-on-Hudson, New York.

The Latin nations of Europe have gone to Aesop, master of his art, for some of their best fables. Fabulas y Cuentos consists largely of a Spanish version of Aesop's fables, taken from an old translation, the Libro del Ysopo, published in Burgos in 1496. The Spanish versions are longer than the Latin, even longer than the French by La Fontaine. Is this difference due to differences in the structure of the languages or the genius of the different nations? At all events the world has no better fables than those of Aesop.

The editor of Leland Stanford Junior University, has offered a pleasing variety in the form of some strictly Spanish fables, folk tales, and short stories. The Perguntas are a model for other questions, thus securing more drill in oral Spanish.

Farm Science.

By W. J. Spillman. Illustrated by R. C. Steadman and J. M. Shull. Cloth, 344 pages. World Book Company, Yonkers-on-Hudson, New York.

Since the rate of increase in crop area in this country is now less than half the rate of increase in population, a book of this character is most timely.

"Farm Science" deals with principles rather than with details of practice, hence is adapted to all sections of the country. Its aim is to explain to farm boys facts about farming that have puzzled them. The chapter on "Soil Improvement" and "How Plants live" express the scientific side of these subjects in a way to be understood easily and will make future farmers more intelligent workers.

As the author has filled important positions in science and agriculture and is now chief in the office of farm management in the United States department of agriculture, he is well qualified to show how two blades may be grown where but one has grown.

The Long Ago Years Stories.

By Alice Ross Colver. Cloth, 64 pages, illustrated. Price, 50 cents. Henry Altemus Co., Philadelphia.

This is a collection of animal fairy stories, illustrated in color.

The state Textbook Commission of Kentucky has adopted new textbooks for the common and high schools of the state, with changes in spellers, readers, arithmetics, grammars, geographies and physiologies, algebras, English grammars, Latin, composition, Virgil and history. Four Kentucky authors are represented among the books adopted.

Uniform textbooks for the public schools of Illinois are provided in a bill which has been introduced in the state legislature by Representative E. C. Perkins. It provides for a commission of five members to have supervision of the textbooks of the schools of the state. The commission is to be composed of the state superintendent of public instruction as executive officer, the director of registration and education, and three others to be appointed by the governor including one county superintendent, one city superintendent, and one president of a state normal school. Authority is given to discontinue any book on a four-fifths' vote.

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5. Why some products are more valuable than others?
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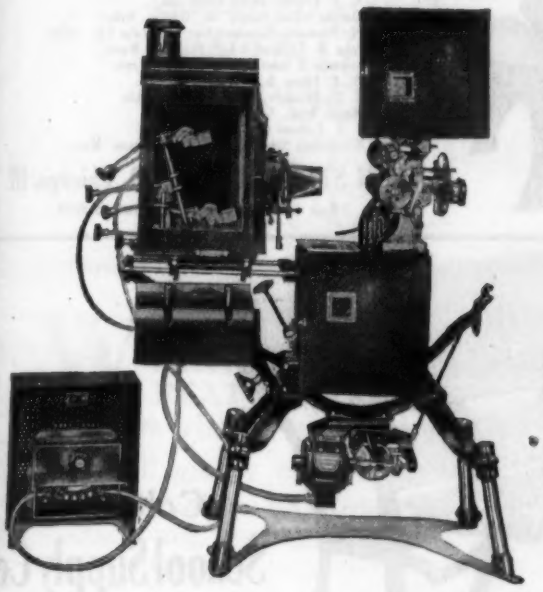

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PARENT-TEACHER ASSOCIATIONS.

(*Concluded from Page 28*)

The work must be *constructive*. Intelligent questioning, investigation, helpful criticism (and above all, commendation) are desirable; but just as soon as the association becomes a clearing house or rather a dump for complaints it is on the wrong track. It emphasizes the undesirable, discourages school people, and sows the seeds of discontent and discord everywhere.

It is one thing for a farmer to say, "This tree needs pruning. I'll show Sam how to do it." It is quite another thing for him to grumble at the tree for growing so many branches, scold Sam for not having pruned it before, get into a temper and prune it himself, to the eternal detriment of the tree—and cut his thumb in so doing.

There are several ways to prune a tree.

SYSTEMATIC SCHOOL WELFARE WORK.

(*Concluded from Page 34*)

"But surely," I replied, "in your system, with its hundred odd teachers, you must have some person who takes care of these affairs."

"Yes, we have," was his answer, "but I don't like to pile any more work on the teachers, and our physical director, tho he is a good man, is too busy with the team to handle all the details."

In other words, he lacked the responsible person.

Well, how about it? Are you absolutely certain that the influences being brought to bear on the children in their hours out of school are of the best? Are there no attractive features in a systematically worked out, well organized and thoroly supervised scheme of students' activities?

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There will be plenty of cooperation, once the teachers are shown, and the matter explained!

Children *are* sent to school "to be learnt"; but, believe me, all our responsibility for their welfare is not included in the course of study or the Manual of the Board of Education. There are certain ideals in life that best find their expression in play, and that are best reached thru this medium. Let's have a little more direct sympathetic supervision, and less "side line" responsibility.

And just remember this—*the American Army took time enough to play*—and they got there, too!

ELEMENTS OF PROGRESS IN SCHOOL SUPERVISION.

(*Concluded from Page 38*)

one, and a better teacher the best one in her profession.

Thirdly, more attention should be paid to scientific measurement thru expert assistance. Many a busy supervisor would gladly use these measurements if he could command help in giving the tests and in tabulating and interpreting the results.

In the fourth place, the public is not conversant enough with the schools. The supervisor who makes a judicious use of the newspapers will experience less difficulty in convincing the public of the wisdom of his policies.

Finally, supervisors must repeatedly translate definitions and aims of education in terms of real children living now. There is a danger that the school imitate the modern factory, that the teaching become so highly specialized that the child is completely forgotten during the process of education. We must be continually on our guard lest we lose humanly while we gain mechanically.

CITIZEN COOPERATION IN EDUCATIONAL RESEARCH.

(*Continued from Page 42*)

and women, to schools and courses fitted to their individual needs.

4. "Malnutrition and health."

The director of physical education has organized classroom health clubs thruout the city. The public education association has cooperated in preparing the necessary blanks and in compiling data regarding various matters of health, such as the amount of sleep, use of tooth brushes, coffee drinking, food, etc.

Altho still in progress, these studies have already provided much data for the guidance of health instruction. Among the facts disclosed are: large numbers of malnourished children, but improving during the three months under observation and direction: undernourishment not confined to any one section of the city, but prevalent among well-to-do homes as well as among homes of lower standards: an astonishing lack of variety and quality of food among certain classes investigated.

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(*Concluded on Page 101*)

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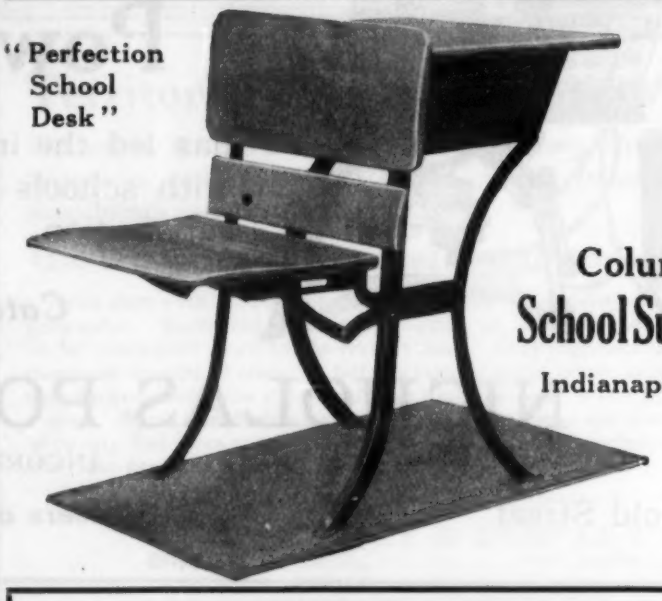

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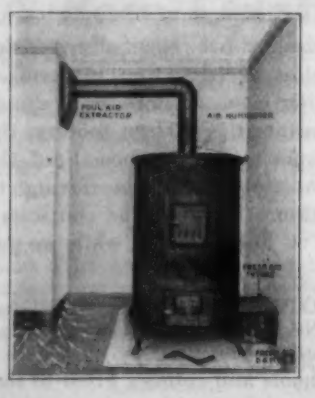

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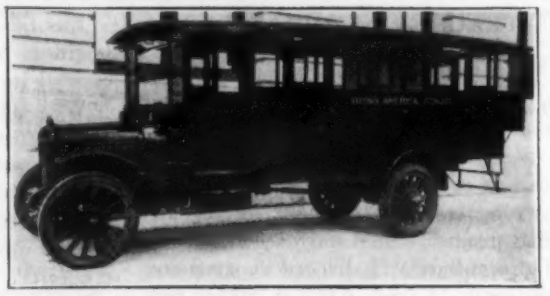

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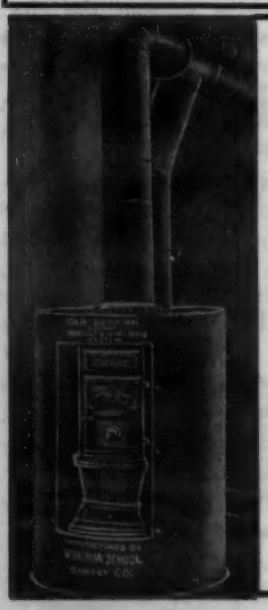

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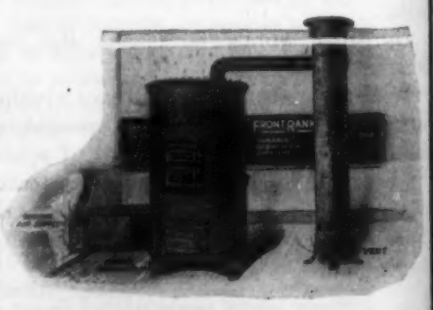

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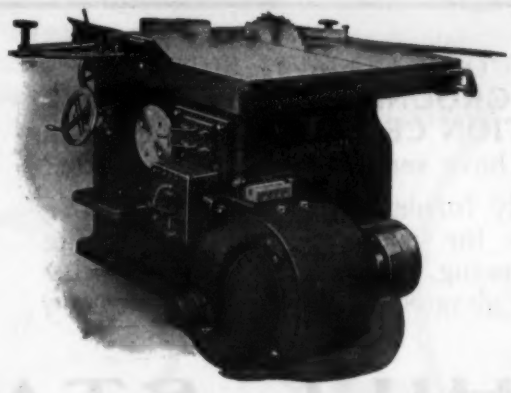

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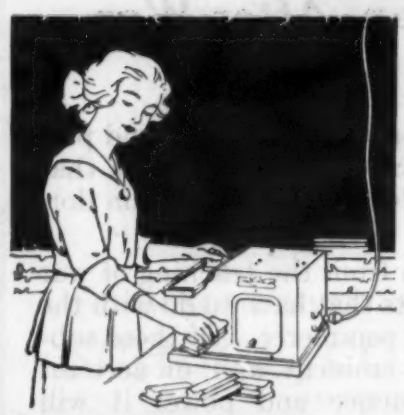

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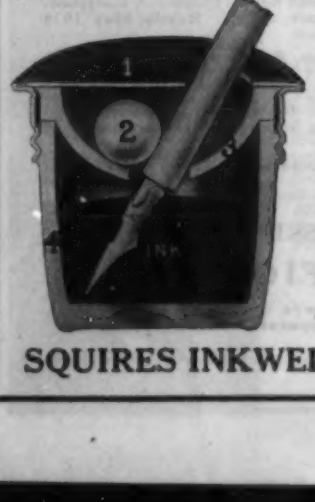

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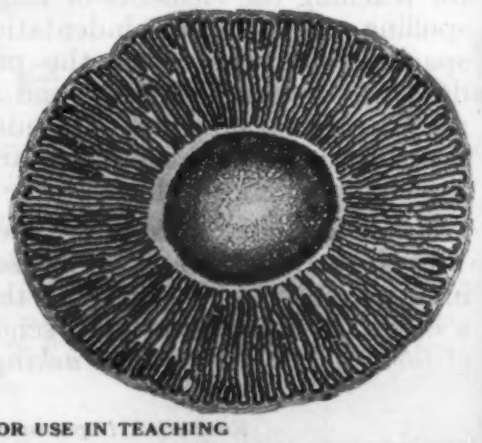

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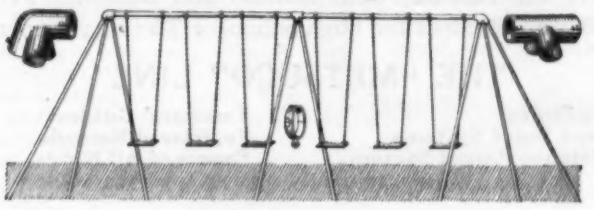

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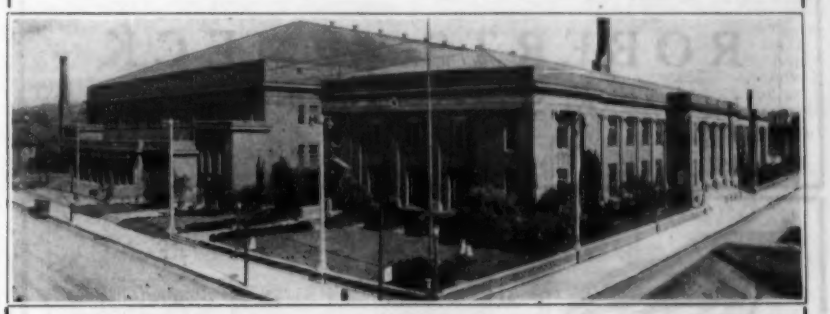

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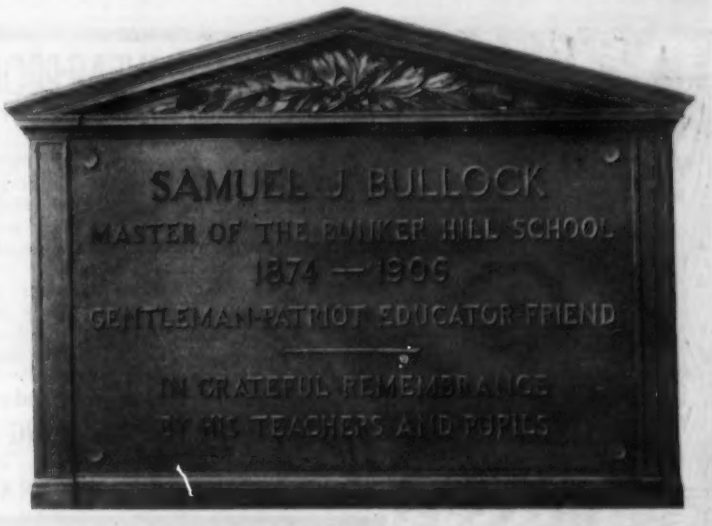

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CITIZEN COOPERATION IN EDUCATIONAL RESEARCH.

(*Concluded from Page 97*)

home diet showed a decided lack of eggs, cereals, milk, butter, cheese and vegetables. Of the eighteen under weight in this class, the following statistics illustrate the problem of malnutrition:

Of the total number of meals, 378, served to these boys 10 to 15 years of age, during a period of seven days, 3 meals, or .8 per cent, included cheese; 11 meals, or 3 per cent, included fruits; 16 meals, or 4 per cent, included eggs; 22 meals, or 6 per cent, included soup (all kinds); 43 meals, or 11 per cent, included cereals (all kinds); 45 meals, or 11 per cent, included vegetables (all kinds); and 53, or 14 per cent, included milk.

The association has also served the general public thru its research activities. Information on many educational subjects has been secured at the request of individuals and organizations. An attempt has been made to secure the cooperation of all local organizations interested in education, to prevent the duplication of research and the spreading of inaccurate information regarding educational affairs.

Three years ago the school department of the city created a Bureau of Research and Efficiency. Unfortunately, the supervisor of the bureau has been hampered by lack of funds, equipment and assistants. He has therefore frequently called upon the association to assist in the answering of questionnaires, the collection of educational data, the compiling and charting of facts.

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Buy the flag with either of our "trade mark" brands as shown above. They are marks of "value." ¶ Our "O. G." Cotton is fast color and a superior flag cloth, suitable for interior purposes. Can be used outside, but not as serviceable as our "EUREKA" Bunting, an imitation wool, fast color, moth-proof bunting, with a durability equal to wool at about one-half the cost. Meets government specifications and requirements both in count and tensile strength. ¶ Our "Old Glory" wool is the BEST MADE flag with the BEST MATERIALS. ¶ All our flags are made for special school service. You can get them from your jobber or dealer.

SILK FLAGS—SEWED AND PRINTED—Paper Flowers and Decorations
We Rent Flags—We Repair Flags—Everything Patriotic

"Old Glory" Manufacturing Co.

24-28 S. Wells Street CHICAGO Phone Franklin 5030

WE SPECIALIZE IN

STEEL TUBING FLAG POLES

EASILY HANDLED AT MINIMUM CARRYING CHARGES

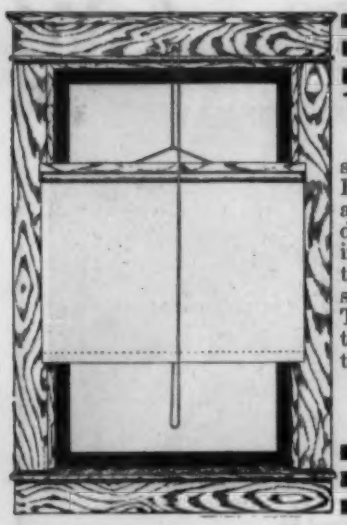
Write for Illustrated Net Prices

THE CHICAGO FLAG & DECORATING CO.

Manufacturers

U. S. FLAGS, ALLIED FLAGS AND DECORATIONS

1315-1325 WABASH AVE., - CHICAGO, ILL.



HAMILTON WEAR-PROOF

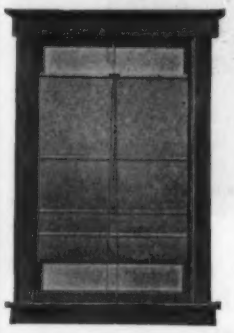
TAN DUCK ADJUSTABLE SHADES

The Pioneer Frampton and other popular styles. With and without spring rollers. Hamilton tan duck wears like iron and is proof against scorching sun, beating wind and drenching rain. Hamilton wear-proof shades in all styles to suit every condition. Guaranteed. Cover *all* the window or part of either sash. Furnished complete, ready to hang. The "quality" line; favorites in schools, factories, public buildings and residences. Distributed by leading supply houses.

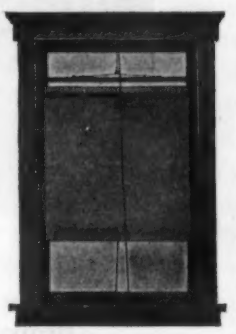
Write for sample of material and catalog.

HAMILTON MANUFACTURING CO.
12th & Chase Sts.
ANDERSON, INDIANA

2 OF THE 15 VARIETIES



STEELE'S DUCK SHADES



Write for Prices, Catalog and Free Sample

OLIVER C. STEELE MFG. CO.
SPICELAND, IND.

Soiled Desks Are Not Spoiled Desks

It is not necessary to buy new desks every few years just because the tops are scratched, and the varnish partly worn off. Naturally this makes the desk poor in appearance. An Automatic Electric Surfacing Machine however, will quickly make the desks like new. The little Electric Machine rapidly and cheaply resurfaces your old desk making them like new.

By using a coarse sandpaper first the old varnish is quickly removed, and by finishing with a fine grade the surface is made smooth and attractive.

Free trial offer. Ask about it.

WAYVELL CHAPPELL & CO.
Dept. F, 414 W. Grand Ave. Telephone Superior 6864
CHICAGO, ILL.

Four Answers to the Question

Here are four different qualities of Drawing Pencils. Which one would best serve the demands of your schools or your personal use?

"VanDyke" 16 Degrees (6B to 8H) — Highest Type—Supreme Quality

"Mongol" 10 Degrees (2B to 6H) — Fine Quality—Smooth, Gritless Leads

"Polygrade" 7 Degrees (2B to 4H) — For Advanced Drawing in Free Hand, Mechanical and Techinal Work

"School" 3 Degrees (B-HB-H) — An Exceptional Pencil for Intermediate Grade Use

Write us for samples—Name the pencil you would like to try

TRADE MARK SERVICE QUALITY

Made in U. S. A. by
EBERHARD FABER
New York Chicago Boston San Francisco

CLASSIFIED WANTS

Copy for this page must reach us at Milwaukee not later than the 15th, preceding the date of issue. All advertisements are guaranteed. The rate is 10 cents per word, per insertion, minimum of fifteen words accepted.

SAMPLES

Free Samples — Johnson Window Shade Adjuster. Sent Parcel Post to school boards stating their needs. The Standard adjuster for years. Thousands of schools now using them. Will quote lowest prices. R. R. Johnson & Co., Wauseon, Ohio. (Formerly of Chicago.)

CATALOGS

Hansen's Clocks—For positive, punctual and lasting service, are the best known. They are easy to install and easy to manage. Write for a copy of our catalog today. Hansen Manufacturing Co., Princeton, Ind.

Pencil Catalog—Write for your copy today. Jos. Dixon Crucible Company, Dept. 31-SJ, Jersey City, N. J.

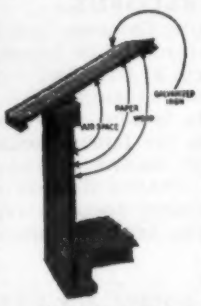
Dandee Waste Baskets—ought to be in every school room. They are made in two sizes and eleven finishes. Upon receipt of your inquiry we shall be pleased to send you prices and descriptive literature. Address Erie Art Metal Co., Erie, Pa.

HELP WANTED

Wanted— experienced school supply man to travel the state of Montana. Address, McDowell Company, 112 North Broadway, Billings, Montana.

PROPOSALS FOR INDIAN SUPPLIES: Department of the Interior. Office of Indian Affairs, Washington, D. C., May 12, 1919. Sealed proposals, plainly marked on the outside of the sealed envelope: "Proposal for Groceries" (or other class of supplies as the case may be) and addressed to the "Commissioner of Indian Affairs, U. S. Indian Warehouse, 308 South Green Street, Chicago, Ill." will be received until 10 o'clock a. m., on each of the following dates and on the class of supplies specified, and then opened: Dry goods, June 26, 1919; Underwear, hosiery, gloves, suspenders, hats and caps, June 28, 1919; Groceries, June 30, 1919; Notions, June 26, 1919; Agricultural implements, wagons, etc., June 24, 1919; Schoolbooks, etc., June 30, 1919; Chinaware, etc., June 23, 1919; Automobile supplies, June 23, 1919. Schedules covering all necessary information for bidders will be furnished upon application to the U. S. Indian Warehouse at Chicago, St. Louis and San Francisco. The department reserves the right to reject any or all bids or any part of any bid, and to post tentative awards promptly, subject to correction.

CATO SELLS, Commissioner.



Bossert Schools

Are Warm in Winter and Cool in Summer

We are equipped to furnish any size building on short notice. Prices of same depend on requirements and State Laws—but in every case are the lowest for quality of material supplied. Remember, this is not a cut lumber proposition, and the cost of erecting is a very small item. While not essential, as any unskilled labor can do it, we will, if you desire, arrange to erect all buildings. Buildings can be taken down and re-erected any number of times without marring a single feature.

We have made portable school houses for other people for over 25 years. Now you can buy Bossert School Houses with all our new patents and improvements direct from us and save money for your school board.

Write us full requirements and we will send details of cost of building completely erected.

LOUIS BOSSERT & SONS, Inc.

Builders of School Houses for over 25 years.

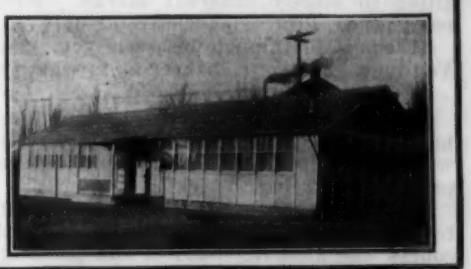
1323 Grand Street — Brooklyn, N. Y.

Sectional and Portable School Houses

If you are in need of Portable School Houses why not get the best? School Boards in thirty-two states are using our houses. Can furnish references in any section. Investigate before buying. We guarantee our

Portable School Houses

to be dry, warm and sanitary, as well as thoroughly insulated, well ventilated and with double walls. Sold in any size, open air and two rooms when desired.



Send for Plans and Prices.

AMERICAN PORTABLE HOUSE COMPANY

3081 Arcade Bldg., Seattle, Wash.

To School Boards-

WORRY no longer about what you will do with your overflow districts; or new districts where you have no appropriation to build on a large scale.

OVER 1000 M. & M. GOLD BOND PORTABLE SCHOOLS

—now in use all over the U. S. Suitable, any climate, low in price, substantial, comfortable—scientifically ventilated—perfect in every detail. No carpenter work. All complete when shipped. Simply match up plainly marked sections. Can be taken down and set up without harm or trouble.

ALL SIZES—ALL PRICES. WRITE for Free Catalog containing designs, plans, specifications, prices.

MERSHON & MORLEY CO., 95 Main Street, SAGINAW, MICH.

THE ARMSTRONG COMPANY SECTIONAL SCHOOL BUILDINGS

The **ARMSTRONG SECTIONAL SCHOOL BUILDINGS** are complete in every detail, having double floors, double side walls and ceilings. With every modern convenience makes them the best **Portable School Buildings** on the market today. With the perfect lighting and ventilation, they are without equal. Our buildings can be taken down and moved to another location without mutilating in the least any of the parts. We can prove it. If you write us what you desire, we will send you full details. We are specialists in Sectional School construction.

THE ARMSTRONG COMPANY, P. O., 401, ITHACA, NEW YORK

WHY don't you purchase the best goods for your school? Our revolving blackboards and roll blackboards have been in constant use in all the Public Schools in New York, and the principal cities for thirty-six years, which is a sufficient guarantee. Send for our illustrated catalog and discount sheet and compare prices with other manufacturers.

N. Y. Silicate Book Slate Co.

20-22-24 Vesey St., NEW YORK

The Norton Liquid Door Check with Hold-Open Arms

Approved by the National Board of Fire Underwriters Laboratories

especially adapted for schoolhouse work.

WHY IS THE NORTON CHECK WITH HOLD-OPEN ARMS THE BEST SUITED FOR SCHOOLHOUSE WORK?

1st. The doors are closed with a uniform speed, which gives the pupils a chance to go through a door without getting caught or injured.

2nd. Having two speeds—the speed at the latch can be set for absolute quiet—no latch necessary.

3rd. The Holder Arm attachment for holding a door open is automatic, a child can operate it — just a push or pull on the door is all there is to do to it. Every schoolroom should have one.

THE NORTON DOOR CHECK CO., 904 W. Lake St., CHICAGO, ILL.

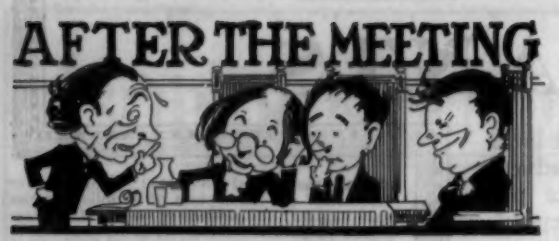
You receive **FULL VALUE** when you buy a **FLAG** of

STERLING - Double Warp - All Wool Bunting
Regt. U. S. Pat. Off.
A Flag of Sterling Quality
OR
DEFIANCE - Two Ply - Cotton Bunting
Regt. U. S. Pat. Off.
A flag that bids defiance to the weather

SOLD BY DEALERS EVERYWHERE

Made only by

ANNIN & CO., New York



The Young Man Who Loved Greek.

A scholar of unusual appearance and manners was Prof. Sophocles of Harvard, whose genuine love of Greek left him no patience with indifferent students and sometimes led to the charge that he dealt unjustly with the young men in his classes. According to the Youth's Companion this anecdote of him appears in Mr. John Spencer Clark's life of John Fiske.

One day a backward student called to explain his remissness and to assure the professor that he did love his Greek study.

"Then name two of your favorite passages," said the professor.

The student named one in the Iliad and one in the Œdipus. Prof. Sophocles handed him the books, saying, "Find those passages and read them to me."

The student, in his reading, made several serious mistakes.

"Young man," said the professor, brusquely, "you do not understand Greek! You have no love for that noble language! You murder it! Enough! I want no more to do with you."

There was much complaint in the class of '63 that the professor's marks were incorrect, and particularly in the cases of three students entitled to widely different marks. When they complained, Prof. Sophocles replied:

"I can't distinguish between you, gentlemen. You must take your chances as to what you get."

Knew Them Both.

The young instructor was holding a class on board of one of his majesty's ships. Grammar was the subject his bright but uninteresting pupils were trying to tackle.

"What are the two principal parts of a sentence?" he asked an old salt. Expecting, of course, the answer, "Subject and predicate."

After much meditation, Jack finally plunged into it.

"Solitary confinement and bread and water."

At a New York recreation center a teacher once noticed a little boy sitting on a bench and holding in his hand a large sandwich consisting of bread, ham, and dill pickles. From time to time the little boy would lift up a corner of the top layer of the sandwich, take out a small shred of ham or a minute piece of dill pickle, put it in his mouth, and arrange the sandwich exactly as it had been before. He did this many, many times, until finally, opening the sandwich for another bite, he discovered with evident disappointment that the filling was entirely gone.

"Why don't you eat it, Isadore?" asked the teacher. Isadore looked up with large, serious eyes and answered, laconically, " 'Tain't mine."—*Everybody's.*

BUYERS' NEWS COLUMN

UNIVENT CATALOG.

Moline Heat, manufacturers of the well-known and widely used Moline heating and ventilating devices, have just issued a valuable educational catalog, describing the "Univent" as a device for schoolhouse use.

The "Univent" has been making rapid strides in gaining the confidence of school authorities and heating engineers because of its economy in first cost and maintenance and because of the positive results which it assures. The new catalog summarizes and illustrates the reasons for the use of univent which is in brief a complete unit heating and ventilating apparatus. By a unique arrangement, it embodies a complete steam radiator, a moter driven fan, a dust separating device and a humidifier in each cabinet, and when set against an outside wall of a classroom it delivers clean, warm, moistened air directly from outdoors, without the use of ducts or flues.

The catalog includes a formidable list of schools in which univents are installed. A copy will be sent to any school authority on request to Moline Heat, Moline, Ill.

The firm has also issued a complete handbook for architects and engineers with full detail plates, tables of sizes and capacities, notes on design of installations, rules for calculation and specifications. This will also be sent gratis, on request.

THE GRAFANOLA IN THE SCHOOLROOM.

A New Catalog of Value.

Even the fondest hope of Edison could hardly have anticipated in the first crude models of his sound reproducing machines, the present utility of the graphophone. Many Americans of middle age will remember that the first machines were considered a scientific novelty for a number of years. Then as they became more numerous people thought them a noisy nuisance, not to be tolerated in homes of refinement. Following this period came ten years of growing acceptance of "canned music." The musician who during this time opposed the use of the machines because of his love for personal performance, has been silenced long ago and today the artistic value of good records is universally accepted. The growth of the use of the graphophone for teaching music has been an important development of the past ten years. It has been the potent factor in the present day practice of making appreciation the main aim of all music study in the elementary and secondary schools.

One of the leaders in the introduction of music appreciation is the Columbia Graphophone Company which has a special department devoted entirely to school service. This department has just recently prepared a complete catalog of records adapted to school use.

The catalog contains classified sections for kindergarten, primary grades, grammar grades, rural schools, normal schools, commercial departments and social center work. It contains instrumental, vocal and orchestral selections as well as folk dances, marches, recitations, characterizations, operatic selections and songs of the different nations. There are also a number of selections suitable for use in physical training, commercial work, study of languages and social center activities.

The catalog is far more than a compilation. It includes considerable pedagogic material of value in selecting records and outlining courses in appreciation, folk dancing, etc.

School authorities, teachers, or play directors who are interested in educational records for any branch of school work should address the Columbia Graphophone Company, care of the Educational Department, Woolworth Building, New York City, for a copy of the catalog.

RENOVATING SCHOOL SEATS.

A Problem and Its Solution.

The renovation of school desks is a constant problem which school systems of any size must tackle each summer in order to put the schoolrooms into a reasonable respectable condition, and to prevent the waste of otherwise good furniture which is simply dirty and scarred as a result of the hard daily wear received during a period of two or three years.

School authorities will welcome as a boon a new school seat cleaning and sterilizing process which has been recently patented and placed on the market by the National Wood Renovating Co., of Kansas City, Mo. This process involves the application of a liquid material which will very rapidly remove all paint and varnish and foreign material from the top of a desk, and will at the same time restore the natural color to the wood so that the latter becomes as clean and bright as it was when the desk was first made. The process is so rapid that a janitor and two assistants can clean from 250 to 350 desks and seats in an eight hour day. The material is guaranteed not to open glued joints or to affect the enamel on the iron frames of the desks. The wood need not be refilled but the entire desks can be completely refinished by the application of one or two coats of varnish.

The Casmire process, as it is styled, is in use in school departments at Kansas City, Minneapolis, Tulsa, Okla., and Denver, Colo. In the last mentioned city 12,000 seats were cleaned during the summer of 1918.

ENGAGE MR. CARLSON.

Mr. C. J. Carlson, of Chicago, formerly connected with the American Seating Company, has recently accepted a position with the Centennial School Supply Company of Denver, Colorado.

Mr. Carlson will have charge of the Sales Department. His long connection with the American Seating Company eminently qualifies him for this responsible position—sale of the high grade equipment manufactured by the American Seating Company, E. H. Sheldon & Company, Weber Costello Company, Oliver Machinery Company, and other manufacturers—the Centennial exclusive lines.

OFFER NEW MOTOR DRIVE.

The Oliver Machinery Company has just announced the marketing of a new universal motor drive for use in double spindle shapers. The drive can be applied to any make of double spindle shaper but is especially designed for all Oliver machines. This form of drive obviates all countershafts and all troublesome devices for handling belts. The motors are regulated by one starter and can be independently adjusted. Complete circular illustrating and describing the drive may be had on request to the Oliver Machinery Company, Grand Rapids, Mich.

NEW VICTOR RECORDS.

The Victor Talking Machine Company has just announced a number of records to be issued in May. Among them there are at least two which are of special interest to school authorities. A trio from Samson et Dalila is sung by Caruso, Homer, and Journet. It is the famous song of victory. A second splendid record consists of bird songs rendered by Mr. Charles Kellogg who has obtained a wide reputation, accurate reproductions of the calls and the ordinary songs of the common birds.

The Gregg Publishing Company has made a shipment of 16,000 shorthand texts to the soldiers of the A. E. F. in France. The books are to be used in the Y. M. C. A. overseas courses.

QUESTIONS AND ANSWERS

This Department is conducted as a personal service for the readers of the Journal. Questions on school board problems, especially on the physical side of school administration, will be answered as promptly as possible by the department editors.

Only such questions will be printed as seem to be of general interest. Address correspondence to Editor, School Board Journal, Milwaukee, Wis.

Accounting Systems.

46. Q:—What is the best accounting system for the secretary of a small city school system? Can you provide me with sample sheets of such an accounting system?—*R. M. S.*

A:—An accounting system for a small school system will be most satisfactory if it is so simple that anyone with an elementary knowledge of double entry bookkeeping can handle it. It is essential to the success of such a set of accounts that it follow the uniform distribution requested by the U. S. Bureau of Education and the Bureau of the Census. With this distribution as a basis it is readily possible to arrange the receipts and expenditures in one book and to arrange columns for extending the distribution to the individual schools of the system.

The following articles which have appeared in the School Board Journal will be found helpful in laying out a system as suggested above. *Accounting Systems of a Small City District.* H. P. Smith, May, 1915, P. 15; *Business Administration in Smaller Districts.* W. J. Flynn, June, 1915, P. 21; *An Expenditures Book for School Accounting.* W. W. Earnest, Sept., 1917, P. 22; *School Accounting.* J. A. Allen, Sept., 1913, P. 19; *School Accounting.* G. D. Lizer, June, 1915, P. 17; July, 1915, P. 18; *School Reporting and Accounting in a Small City.* C. C. Green, May, 1917, P. 27; *Uniform and Simple System of Bookkeeping for Schools.* Egbert Close, Feb., 1914, P. 17; *Annual School Budget.* S. F. Conley, Aug., 1916, P. 14; *Houston, Tex., Record Blank.* Nov., 1915, P. 35; *School Accounting.* Alfred Lister, June, 1914, P. 19; *An Understandable Report.* Jas. A. Wagner, Ottumwa, Ia., Sept., 1918, P. 63.

C. F. Williams & Sons, Albany, N. Y., are publishers of the school accounting systems of New York State and can lay out a system for a small city.

School Goods Directory

ACCOUNTING FORMS
C. F. Williams & Son, Inc.

ADJUSTABLE WINDOW SHADES
Oliver C. Steele Mfg. Co.
L. O. Draper Shade Co.
Aeroshade Company
Walger Awning Co.
Perennial Shade Company

AIR CONDITIONING APPARATUS
American Blower Co.
Beery Engineering Co.
Moline Heat.

ASH HOISTS
F. S. Payne Co.
Gillis & Geoghegan

AUDITORIUM SCENERY
Kansas City Scenic Company

AUDITORIUM SEATING
Peabody School Furniture Co.
American Seating Co.
N. J. School Furniture Co.
Heywood Bros. & Wakefield Co.
Empire Seating Co.
Superior Seating Co.
Steel Furniture Co.
Theo. Kundtz Co.

BELLS
J. B. Foote Foundry Co.

BLACKBOARDS—COMPOSITION
N. Y. Silicate Book Slate Co.
Beaver Board Companies
E. W. A. Rowles Co.
Weber Costello Co.

BLACKBOARDS—NATURAL SLATE
Keenan Structural Slate Co.
Penna. Struct. Slate Co.
Natural Slate Blackboard Co.

BOILERS
International Heater Co.
Smith System Heating Co.
Kewanee Boiler Co.

BOOK COVERS
Holden Patent Book Cover Co.
Peckham, Little & Co.

BOOK PUBLISHERS
Gregg Publishing Company
D. C. Heath & Co.
Isaac Pitman & Sons
Silver, Burdett & Co.
American Book Co.
Arthur J. Barnes Pub. Co.
Macmillan Company
A. N. Palmer Co.
Ginn & Company
Educational Publishing Company
Christopher Sower Co.
D. Appleton & Company.
A. J. Barnes Publishing Co.
Rand, McNally & Co.

BRUSHES
Badger Brush Company

CAFETERIA EQUIPMENT
Albert Pick & Co.

CHARTS
Weber Costello Co.

CHEMICAL CLOSETS.
Dail Steel Products Co.

CHEMICALS
Central Scientific Co.

CLOCKS
Standard Electric Time Co.

CLOSET BOWL CLEANSERS
Hygienic Products Co.

CRAYONS
Binney & Smith
American Crayon Co.
Peckham, Little & Co.
E. W. A. Rowles Co.
Weber Costello Co.
National Crayon Co.
Jos. Dixon Crucible Co.

DEAFENING QUILT
Samuel Cabot

DESK SURFACING MACHINE
Wayvell Chappell & Co.

DICTIONARY STANDS
Union School Furnishing Co.

DIPLOMAS
W. M. Welch Mfg. Co.
Metropolitan Supply Co.

DISINFECTANTS
Theo. B. Robertson Products Co.
Central City Chemical Co.
West Disinfectant Co.

DOMESTIC SCIENCE EQUIPMENT
E. H. Sheldon & Co.
Kewaunee Mfg. Co.
C. Christiansen
Leonard Peterson & Co.
Federal Equipment Co.
Albert Pick & Co.

DOOR CHECKS
Norton Door Check Co.

DRAFTING ROOM FURNITURE
E. H. Sheldon & Co.
C. Christiansen

DRAWING MATERIALS
Devoe & Raynolds

DRINKING FOUNTAINS
L. Wolff Mfg. Co.
N. O. Nelson Mfg. Co.
Rundle-Spence Mfg. Co.
Imperial Brass Mfg. Co.
United Pump & Power Co.

ELECTRIC COOKING EQUIPMENTS
Edison Electric Appliance Co., Inc.

ELEVATORS
F. S. Payne Co.

ENGRAVINGS
Premier Eng. Co.

ERASERS
Weber Costello Co.
Jos. Dixon Crucible Co.

ERASER CLEANERS
Weber Costello Co.
James Lynn & Co.

EXIT DEVICES
Vonnegut Hardware Co.

FIRE ESCAPES—SPIRAL
Standard Conveyor Co.

FIRE EXTINGUISHERS
McFarland-Hyde Co.

FIRE ALARM SYSTEMS
Stand. Electric Time Co.

FIRE EXIT LATCHES
Vonnegut Hardware Co.
Sargent & Co.

FLAG POLES
Newark Steel Post Co.
N. O. Nelson Mfg. Co.
H. Channon Co.
Otto Blefeld Co.

FLAGS
The Chicago Flag & Decorat. Co.
Annin & Co.
John C. Dettra & Co.
"Old Glory" Mfg. Co.
American Flag Co.

FLOOR BRUSHES.
Milwaukee Dustless Brush Co.

FLOOR DEAFENING
Samuel Cabot

FOLDING PARTITIONS
Jas. G. Wilson Corp.

FURNACES
Haynes-Langenberg Mfg. Co.

FURNITURE
American Seating Co.
Peabody School Furniture Co.
N. J. School Furniture Co.
Heywood Bros. & Wakefield Co.
Columbia School Supply Co.
Empire Seating Co.
E. H. Stafford Mfg. Co.
Quaint Art Furniture Co.
Superior Seating Co.
Steel Furniture Co.
Illinois Refrigerator Co.
E. H. Stafford Mfg. Co.
Theo. Kundtz Co.

GLOBES
Weber Costello Co.

GRAPHOPHONES
Columbia Graphophone Co.

GYMNASIUM APPARATUS
Fred Medart Mfg. Co.

HEATERS
H. Channon Co.
Haynes-Langenberg Mfg. Co.
Virginia School Supply Co.
Waterman-Waterbury Co.

HEATING SYSTEMS
Amer. Fdry. & Furn. Co.

INK
E. W. A. Rowles Co.
Badger Brush Co.

INKS—DRAFTING
Devoe & Raynolds

INKS, PASTE
Commercial Paste Co.

INK WELLS
Squires Inkwell Co.
Sengbusch Self-Closing Inkstand Co.
U. S. Inkwell Co.

JANITORS' SUPPLIES
Theo. B. Robertson Products Co.
Palmolive Company
Albert Pick & Co.
H. Channon Co.
Milwaukee Dustless Brush Co.

LABORATORY FURNITURE
Kewaunee Mfg. Co.
Leonard Peterson & Co.
Federal Equipment Co.
E. H. Sheldon & Co.

LABORATORY SUPPLIES
Central Scientific Co.
W. M. Welch Mfg. Co.

LIBRARY SHELVING
Durand Steel Locker Co.

LIGHTING FIXTURES
Beardslee Chandelier Mfg. Co.

LIQUID FLOOR HARDENER
L. Sonneborn Sons.

LIQUID SOAP
Palmolive Company

LOCKERS
Federal Steel Fixture Co.
Berger Mfg. Co.
Durand Steel Locker Co.
Fred Medart Mfg. Co.
Lyon Metallic Co.

MACHINERY
Oliver Machinery Co.
Amer. Wood Work. Mach. Co.

MANUAL TRAINING EQUIPMENT
H. Channon Co.
E. H. Sheldon & Co.
C. Christiansen
Kewaunee Mfg. Co.
Federal Equipment Co.
Oliver Machinery Co.

MAPS
Weber Costello Co.

MEMORIAL TABLETS
John Williams, Inc.
Albert Russell & Sons Co.

MICROSCOPES
Bausch & Lomb Opt. Co.
Spencer Lens Company

MOTION PICTURE MACHINES
Nicholas Power Co.
Enterprise Optical Mfg. Co.
The DeVry Corporation
Victor Animatograph Co.
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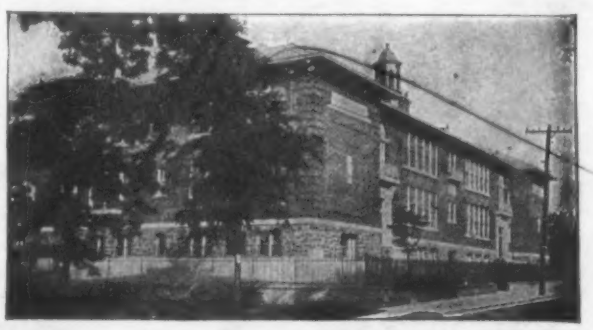

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